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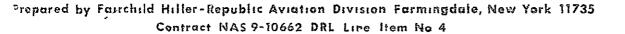
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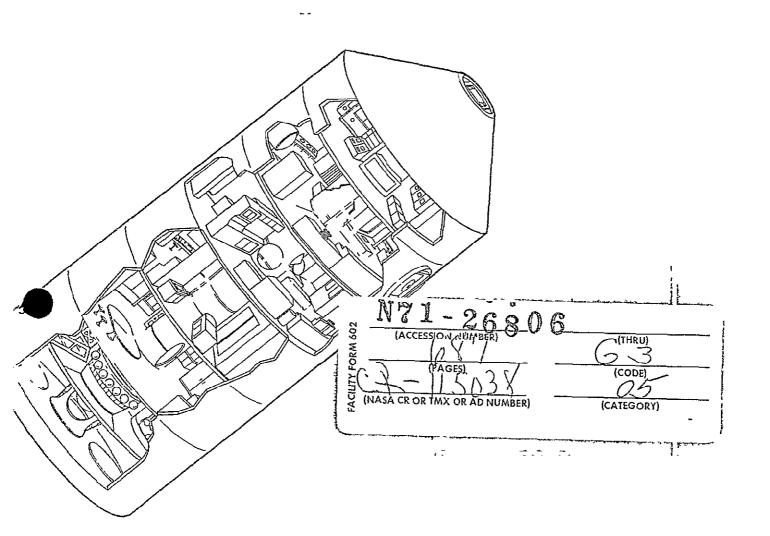
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HOUSEKEEPING CONCEPTS FOR MANNED SPACE SYSTEMS

DATA BOOK - VOLUME III WASTE CONTROL SEARCH/REPORT COMPUTER PROGRAM

Prepared for

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Manned Spacecraft Center Houston, Texas 77058

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ABSTRACT

This Data Book contains parametric data on the Waste Control aspects of Housekeeping for future manned orbital spacecraft. The data is intended for use by the mission planner, the spacecraft conceptual designer and the equipment designer. The contents cover

• Identification of Waste Products, Rates of Generation and Constraints

Approximately 220 potential waste sources, i.e., personnel life support functions, subsystem equipments and potential experiments, were identified. Study of these waste sources identified 1500 waste items, their constituents, rates of production and interfacing information for handling and processing.

Utilization Processes

Utilization processes are those potentially capable of converting waste into useful onboard consumables/expendables in lieu of logistical resupply. Both existing systems and basic processing concepts useful as building blocks are discussed.

e Pretreatment Processes for Disposal

Conceptual designs and parametric data are presented for treatment of normal organic and potentially pathogenic waste for deactivation or sterilization. Concepts for the compaction and packaging of deactivated wastes are presented.

• Waste Disposal

Conceptual designs and parametric data are presented for separating wastes from the spacecraft. These include the use of the shuttle with resupply/disposal modules, rocket launch for incineration in the earth's atmosphere or alternate earth and sun orbits, and overboard jettisoning.

Waste Control and Housekeeping

Manual and automated concepts of waste collection, pickup, transfer and sorting for interfacing with utilization or disposal processing equipment are presented. The rationale for preparation of crew task and time line information as influenced by partial and zero gravity is developed. In addition, background human factors information for space flight is discussed.

Search/Report Computer Program

Because of the magnitude of the information generated, a computer program with updated and search capabilities was developed.

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The Data Book is divided into three volumes and, because of the magnitude of the information presented, Volume II into two books. Their contents are as follows

VOLUME I - WASTE CONTROL - TASKS AND SYSTEM CONCEPT

This volume contains the basic results of the study except for the backup data on the definition of wastes.

VOLUME IIA and IIB - WASTE DEFINITION

Volume II contains the definition of waste products and the backup information.

VOLUME III - WASTE CONTROL SEARCH/REPORT COMPUTER PROGRAM
This volume contains a brief description of the organization of the data,
a complete printout of the data, and a description with examples of the search and
retrieval capabilities provided.

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INTRODUCTION

0 0 INTRODUCTION

The computer program which has been developed to store and process the available data on spacecraft waste control is described in Volume 1, Section 7, a detailed description of the program is contained in the User's Manual (F/H Report MS 124Y0005) This volume of the Data Book contains a brief description of the organization of the data, a complete printout of the data, and a description of the search and retrieval capabilities provided.

The data contained in Sections 1 0, 2 0 and 3 0 was derived entirely from the material in Volume II, which consists of information relating to waste materials properties and generation. Future versions of this book will incorporate, in addition, data from the areas of waste handling, and processing and disposal procedures and processes. The computer programs have been developed so as to easily adapt to these extensions

0 1 DATA CHARACTERISTICS

0 1 1 Data Structure

The data in storage is collected into large logical groups. This arrangement affords rapid processing during searches and updating by retrieving and/or storing in the computer core by one operation, not only the desired item, but all data directly associated with it

Table 0-1 shows the structuring of the data on waste generation in a hierarchical manner. The fundamental element by which spacecraft waste sources have been grouped has been taken to be the spacecraft subsystem or laboratory. The data is generally organized within each subsystem/laboratory structure in a manner analogous to that employed in Volume II, two exceptions are the "functional requirement" and "basic function", which are treated as auxillary data to the specific subsystem or laboratory

TABLE 0-1

DATA STRUCTURE WASTE GENERATION FILE

- 1. Subsystem/Laboratory
 - 2. Name
 - 2. Functional Requirement
 - 2. Basic Function
 - 2. Experiment/Equipment (*)
 - 3. Name
 - 3. Area Name (*)
 - 3. Associated FPE
 - 3. Waste Source (*)
 - 4. Name
 - 4. Document Reference
 - 4. References (*)
 - 4. Waste Item (*)
 - 5. Name
 - 5. State
 - 5. Density (Average)
 - 5. Attributes
 - 5. Elements Present
 - 5. Composition
 - 5. Generation Data (*)
 - 5. Reclamation Action

^{* -} Data which may contain more than one item

The next level corresponds to division of data within a given subsystem or laboratory into a number of experiments (processes) or pieces of equipment so specified as to completely encompass all proposed spacecraft subsystems. The associated area name(s) of the spacecraft and the FPE number (in the case of the experiments) are also stored at this level. Each experiment or equipment is then broken down into a number of possible waste sources. Reference is given, by number, to the operational description document of Volume II for detailed engineering discussion.

Table 0-1 gives, at the lowest level, the specific data which is stored for a given waste item. The nature of each item is discussed individually in the paragraphs below.

0 1 1 1 State

This data is in keyword form so as to permit search and retrieval, and uses the three basic words

SOLID, LIQUID or GAS.

0.1 1 2 Density (Average)

Waste material average density in lbs/cu. ft. is stored as numerical data, so as to permit data search on magnitude.

0 1 2 3 Attributes

Keyword storage of characteristics of the waste materials of significance to spacecraft housekeeping and waste management is used in this category. The keywords fall into three principal categories

- Material type, eg metal, plastic, glass, textile, paper, acid, alkali, oil, water, colloid, suspension, gel, etc.
- Form factor, eg flexible, rigid, sheet, rod, tubular, spongy, bulky, loose granuals, sharp, brittle, semi-liquid, slurry, highly dense, etc.
- Constraints, eg toxic, pathogenic, contaminated, noxious odor, explosive, unstable, radioactive, organic, hot, cold, dusty, smoky, condensable, etc.

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0 1 1 4, Elements Present

The standard chemical symbols for the principal elements present as well as any trace elements of special interest are stored in this category, with each element separated by a comma.

0 1 1 5 Composition

The principal constituents are identified by common material names, compound names or, in some cases, by chemical formula.

0 1 1 6 Generation Data

The "Generation Data" category contains numerical tabular data on specific quantity or rate of waste mass generation. The current version of the data file contains three entries for each waste item, the units being dependent on the basic spacecraft function as follows:

TABLE 0-2 WASTE GENERATION UNITS

Basic Function	<u>Units</u>	Q (1)	Q (2)	Q (3)
Support Lufe	lbs/year	/12 men	/50 men	/100 men
Maintain S/C Functions	lbs	/10 yr	/day	/umi
Perform Mission Tasks	Ibs	/expt.	/day	/batch

Further explanation of the reasons for this representation of waste generation quantities is given in Volume IIA, para. 0.4.2.3.

0 1 1 7 Reclamation Action

This data item contains, where applicable, a short phrase describing actions necessary to restore the waste material to reuse in its original function.

0.2 DATA SEARCH AND RETRIEVAL

0.2.1 Program Description

Search and retrieval capability for specific items or groups of items satisfying given conditions is the key to use of the data file for optimization (trade-off) studies, development of procedures, etc. An initial version of a program for this purpose has been developed for processing the waste generation data. This program permits retrieval of lists of data elements satisfying specified criteria from the information contained in the data files. Any number of searches can be performed on a given computer run. The program permits selection of the following logical connections between the search criteria or keywords

b)
$$(K_1)$$
 OR (K_2) OR ... OR $(K 10)$

Thus a quite flexible and extensive logical search capability is provided.

For a particular search, the files desired, the keywords and associated data elements to be searched, and logical control data are input in card form. Search is accomplished by reading in succession each record of the desired files and testing for matches between the contained data and the desired values (search keys). When a hit is made, the data is printed on a Search Report.

The purpose of the report format at the present stage of program development is to provide sufficient data for each hit that a definitive reference to the data book file printout is provided, through this reference, any other desired information about the located items may be obtained manually. This reference is provided by giving the major indentation identifiers of the data structures, for example, in the waste generation file, the spacecraft subsystem, equipment/experiment name, the waste source name, and the waste item name. In addition the waste quantity tables are printed.

0.2.2 Data Search Examples

The program output sheets from eight sample searches of the waste generation file

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are presented in Tables 3 through 10. The keywords and logic were selected so as to demonstrate the general program capability. They provide lists of all waste items which satisfy the following criteria

Search No.	<u>Table</u>	Search Question
1	3	Material contains water
2	4	Material is generated in kitchen or dining area or snack bar
3	5	Material is contaminated or pathogenic
4	6	Material is generated in Bio-Laboratory and is solid
5	7	Material contains Fe and Cu
6	8	Material contains Fe or Cu
7	9	Material originates in man-oriented functions and exceeds
		100 lbs/year for a 100 man station and is either contaminat-
		ed or pathogenic and is either textile or paper material.
8	10	Material is solid and requires cleaning for reclamation
_		or is textile and requires laundering for reclamation.

The output for each search specifies the logic used, the keywords together with an identifier and a description of the data type with a program address vector. A list of the retrieved waste items follows, together with key data for locations of ancillary data in the data file printout (Sect. 1, 2 or 3), data on which keywords are associated with the retrieval, and the associated waste quantity data.

TABLE 0-3 SEARCH REPORT #1 - MATERIAL CONTAINS WATER

SEARCH NO 1

THE SEARCH HAS USED . NULL . LOGIC ON THE FOLLOWING KEYWORDS

*OR *	ITEM 1	ND'ITFM	KEY	HORD			VECTOR
	1	1	WATER	(COMPOSITION)			13
****	****	*****	****	*******	***	*****	****
HE FOLL	OWING IT	TEMS WERE RET	RIEVEN				
		ENITE ACURT	HACTE	WASTE ITEM		QUANTITI	ES
FYWORD NO	GROUP KEY	NO NO	SOUPCE		12 MFN	50 MFN	100 MEN
114	., .						*****
	1.1 3	1	1	AUTOCLAVE WASTE WATE		183 00	
	114	1	1	WATEP	840 00	3360 00	6720 00
	iši	ī	1	WATER	41 00	170 00	340 00
	1 3.1	ì	2	WATER	41-00	170 00	340 00
	1 3.1	l	3	WATER	41 00	170 00	340-00
	1 3 2	1	1	WATER SPILLED AND NO T DRUNK 10 PERCENT		4200 00	8400.00
,	134	?	3	WATER	8520 00		
	141	1	1	VAPORIZED PRODUCTS	1022 00	4258.00	
	1.4 2	ι	ı	CONTAMINATED WASH WA			
	1 4 2	1	7	. DIRTY WASH WATER		78000 00	
	1 4 2	1	3	USED WASH WATER	2190 00	9125 00	
	1 4 3	ī	1	DIRTY WATER	5615 00	23370 00	46740 00
	1 4 4	ï	ì	WASH WATER	143000 00		
	1.4 5	2	1	USED WASH WATER AND BACTERICIDE	315 00	1313 00	2626 00
							TE UNIT WFICH
				U4.7.00	300 00		
	2 3.1	1	1	WATER			
							E BATCH STZF
	3.4 1	1	?	AUTOCLAVE WASTER WAT	45 00	0 50	0.00
	3 4.2	7	1	WATER	0.00	0.00	0.00
	3 4 3	4	ĩ	MACFRATED TESTES BOT	0 02	0 00	0 02
	3 4 4	2	1	WATER VAPOR	0 40	0.01	0 01
	3 4 5	í	í	WASTE WATER	3.00	0 01	0 01
	3 4.5	ī	i	URINE	3000 00		10.00
	7 4 5	ž	i	WASTE WATER	2 00		0 01
	3 4 5	2	ī	URINF	576 00		2 40
	3 5 1	ī	3	URINE	180.00		0 50
	3 5 1	i	3	WASTE WATER	10-00	0 03	0.03

				t			
*	3.5 1	2	2	URINF	73.50	0.00	1-26
*	3.5.1	2	6	. WASTE WATER	7 00	0.02	0.07
*	3.5 1	2	6	URINE	50 0 0	0 I4	0-14
*	3.5.1	?	10	URINE	2.00	0 14	0.14
*	3 5 1	2	10	WASTE WATER	0 40	0.02	0 02
*	351	2	13	URINF	40 00	0 10	0 10
*	3 5 1	2	14	WASTE WATER	4 00	0 02	0.02
*	3.5 1	2	14	URINE	10 00	0 04	0 04
*	3 5 1	3	4	. WASTE WATER	0 50	0 04	0 04
*	3 5 1	á	4	URINE	0 01	0.01	0.01
*	3.5 i	3	5	WASTE WATER	0.05	0.00	0 00
*	3.5.1	3	5	URINE	0.00	0.00	0.00
*	3 5 1	ž	6	WASTE WATER	0 50	0 04	0 04
*	351	3	6	URINF	0.01	0 01	0 01
*	3 5 1	4	ž	R/A URINE	600 00	0 00	6.00
*	3 5.1	4	2	UPINE	800 00	0 00	4 00
*	3 5 1	4	3	URINE	7 00	0 00	1 40
*		4	4	WASTE WATER	0.50	0.02	0 02
*	3 5 1	4	4	UPINE	0.01	0.01	0 01
	3.5 1	5	2	URINF	4.00	0.00	0 07
*	3-5 1	5	3	URINE	4 00	0 00	0 06
*	3 5 1		4	URINF	4 00	0 00	0 07
*	3 5 1	5		URINE	4 00	0 00	0 08
*	3.5.1	5 5	4 5	URINF	4.00	0 00	0 08
*	3 5 1	? 5			4 00	0 00	0.08
*	3-5 1	•	6	URINE	4.00	0 00	0 07
*	3 5 1	6	1	81000	6 00	0.00	0.11
*	3 5 1	6	1	URINE	6.00	0.00	0-14
*	351	6	2	WATER WASTE	3 00	0 00	0.07
*	3.5 1	6	3	WAYER WASTE	2 00	0 00	0.03
*	3 5 1	6	4	81 00D	50 00	0 00	0.89
*	3 5 1	6	4	URINF	1 00	0 00	0 16
*	3 5 1	6	5	WATER WASTE		0 00	0 03
*	351	7	1	BLOOD	2.00	0.00	0 89
*	351	(-	ì.	URINE	50.00	0.00	0 03
*	351	7	2	BLCOD	2.00	0.00	0 40
*	351	7	3	URINE	25.00		0 19
*	3.5 1	7	3	WATER WASTE	10.00	0 00	0 20
*	351	7	4	WATER WASTES	10 00	0.00	0.01
*	3.5.1	8	5	WATEP WASTE	0 15		
*	3.5 1	8	6	WATER WASTE	0 60	0 00	0 12
*	351	ዳ	7	WATER WASTE	12 00	0 00	0.30
*	351	9	1	AUTOCLAVE WASTE WATE	183 00	0 50	ဂ-ဂ၇
				R			
*	3.5 ?	2	4	WATER (SUIT COOLANT)	4 00	0 00	2 00
*	3 5.2	7	4	WATER (FORMED)	0 65	0.00	0 03
*	3 6 - 2	1	1	WATER	125 00	0 00	0.00
*	3.6.2	1	1	WATER	625.00	625 00	125 00

TABLE 0-4 SEARCH REPORT # 2 - MATERIALS GENERATED IN KITCHEN, DINING AREA OR SNACK BAR

SEARCH NO. 2

THE SEARCH HAS USED * OR * LOGIC ON THE FOLLOWING KEYWORDS

OR'TTEM '	AND'ITEM KEYHORO		VECTOR
1	KITCHEN {AR	FA)	2
2	DINING ARFA	(AREA)	2
3	SNACK BAR (ARFA)	2
****	***********	*******************	******

THE FOLLOWING ITEMS WERE RETRIEVED

	00
1 1 3 1 1 1 FPFON 10.00 42.00 84.1	
1 131 1 1 LIGHT BULBS 0-15 0-61 1-7	71
1 1.31 1 1 SPENT PARTS 400 800 16.4	00
1 1 3-1 1 1 WATER 41-00 170-00 340 (00
1 1 1 1 1 1 FOOD IN PKG. 7 80 32 60 65 3	30
1 1.31 1 ? LIGHT BULBS 0 15 0 61 1	
1 1 3 1 1 2 FOOD IN PKG 780 37 60 65.	
1	
1 131 1 3 WATER 41 00 170 00 340	
1 131 1 3 FOOD TN PKG. 780 37.60 65	
1 1 3 1 1 3 FOOD IN PKG. 7 80 32.60 65 3 1 1 3 1 2 1 FOOD IN PKG. 8 40 34.90 69.4 1 1.3.1 2 1 LIGHT BULRS 0 15 0.61 1.3	
1 1.3.1 2 1 LIGHT BULRS 0 15 0.61 1.	
1 1.3 2 1 1 FOOD IN PACKAGE .5 P 45 50 188.00 375 (
ERCENT	- •
3 1 3 2 1 1 FOOD IN PACKAGE .5 P 45 50 188.00 375 0	00
ERCENT	- (
1 1.3 2 1 1 WATER SPILLED AND NO 1007 00 4200.00 8400.	20
T DRUNK 10 PERCENT	30
3 1.3 2 1 1 WATER SPILLED AND NO 1007 00 4200.00 8400.	20.
T DRUNK 10 PERCENT	
1 1 3 2 1 2 SPOILED FOOD IN PKG 136.50 570 00 1140.4	10
3 1.3.2 I 2 SPOILED FOOD IN PKG. 136.50 570 00 1140.	
3 1.3.2 1 2 SPAILED FADD IN PKG. 136.50 570 00 1140.1 1 3 7 1 2 MACNITRON TUBE 2 10 4.20 7 6	
3 1 3.2 1 2 MAGNITRON TURE 2.10 4.20 7.0	
1 1 3 2 2 1 PACKAGINC 18-00 77 00 165 0	
1 1 3.2 2 1 ATTACHED FOOD .5 PER 14 50 61.00 122	
CENT OVERALL	•0
1 132 2 1 WIPFS(TOWEL)4/DAY/12 0.00 0.00 0.	20
MAN CREW 107 WASTE	30
1 1.3.2 2 1 FLEX. DRINKING DEVIC 0 37 1.56 3.7	12
· · · · · · · · · · · · · · · · · · ·	20
1 1 3.7 2 1 SPILLED FOOD 3 PERCE 87.00 366 00 730 (10

				ŊŦ			
•	1 3.3	1	1	SPILLED FOOD	100 00	460 00	920 00
2 2	1 3 3	ì	i	DISTNEECTANT SOL	52.00	220-00	440 07
2	1 3 3	î	i	PACKAGE FOR DISINFER	1 75	7.00	14 99
۷	. , ,	•	•	TANT			
•	133	2	t	UNFATEN FOOD	2780 00	11600 00	23200 00
2	1 3 3	2	1 1	UNEATEN FOOD	2780 00	11690 00	23200.00
2	1 3.3	ž	i'	NAPKINS (LINFN)	42 00	175 00	350 00
	1 3 3	ž	î	NAPKINS (LINEN)	42 00	175 00	350 00
3		2	i	SPILLED FOOD	100 00	460.00	920 00
2	133	2	î	SPILLED FOOD	100.00	460 00	920 00
3	1 3 3		•	FILTER UNIT.CLOGCED	2.60	10 30	21 60
1	134	1	1	FILTER UNIT, CLOCCED	2.60	10.80	21.60
2	134	1	Ţ	FILTER UNIT+CLOGGED	2.60	10 80	21 60
3	t 3 4	1	1		10 90	43 70	87 40
1	134	1	ı	DERRIS PKG.FILLED WI	(11 34)	77 10	0.
		_		TH DEBRIS	10.90	43 70	87 40
7	134	1	1	DEBRIS PEG. FILLED WI	[0.70	47 10	(1) 70
				TH OFRRIS	*^ ^	43 70	87.40
3	134	1	1	DEPRIS PEG FILLED AT	10 90	45 (0	01.40
				TH DEBRIS			10.00
t	134	i	1	PACKACE TIF.PEUSARLE	2 55	9 50	19 00
2	1 3 4	1	1	PACKACE TIE.REUSABLE	7.55	9 50	19 00
3	1 3 4	1	1	PACKAGE TIF. PEUSTBLE	2 55	9 50	19 00
1	1 3 4	1	1	SCRAPER, WORN	0-40	0 80	1.60
2	1 3 4	1	ι	SCPAPFR, PORN	0 - 40	0.40	1.60
3	1 3 4	1	1	SCPAPER, HORN	0 40	0.80	L 60
í	1 3 4	ī	1	COLLECTED FOOD WASTE	100.00	460.00	920 00
2	1 3.4	ī	1	COLLECTED FORD WASTE	100-00	460 00	920.00
3	1 3.4	i	î	COLLECTED FOOD WASTE	100 00	460.00	920 00
í	1 3 4	ŧ	ĩ	VACUUM CLEANER TIPS,	0 80	1 60	3.20
	. , ,	•	-	WORN			
,	134	1	ı	VACUUM CLEANER TIPS.	0.80	1.60	3 2 9
•	() 7	•	•	WORN			
•	134	1	1	VACUUM CLEANER TIPS.	0.80	1 60	3 20
3	1 > 4	1		WORN			
		1	2	WTPES	51 20	235 00	412 00
<u>l</u>	1 3 4	-	2	WIPES	51 20	235 00	412 00
?	134	1		WIPES	51 20	235-00	412.00
3	1 3 4	1	?	BACS OF MASTED FOOD	3165 00	13251 00	26500 00
1	1 3.4	1	?	BAGS OF HASTED FOOD	3165 00	13251.00	26500.00
7	134	<u>l</u>	?		3165-70	13251 00	26500 00
3	1.3 4	1	?	MACS OF WASTED FOOD	11 00	44 00	88 00
1	134	1	?	CLOVES	11.00	44 00	88.00
7	134	1	?	GLOVES	11-00	44 00	88.00
3	1.3 4	1	2	CLOVES			1 60
1	134	1	2	SCRAPER	0.40	0 80	_
2	1 3.4	ì	2	SCRAPER	0.40	0.80	1 60
3	134	1	2	SCRAPFR	0-40	0.80	1.60
1	134	1	2	NOTTEF. VACUUM PTCKUP	0.80	1.60	3 20
2	1 3 4	1	2	NOTTLE VACUUM PICKUP	0.80	1-60	3-20
3	1.3 4	1	2	NOZZIF, VACUUM PICKUP	0 90	1.60	3 20
i	1 3 4	2	1	FOOD DERRIS	278.00	1160 00	2320 00
ì	134	7	1	DETERGENT	40 50	17000 00	162 00
i	134	2	l	WATER	8520 00	0.00	34000 00
î	1 3.4	3	ī	FILLED WASTE LINERS	8 00	32 50	65 00
ż	1 3 4	ત્રં	ī	FILLED WASTE LINERS	8.00	32 50	65 70
3	1 3 4	3	ī	FILLED HASTE LINERS	3 00	32 50	65 00
		-	-				

TABLE 0-5 SEARCH REPORT #3 - MATERIAL IS CONTAMINATED OR PATHOGENIC

SEARCH NO. 3

THE SEARCH HAS USED * OR * LOGIC ON THE FOLLOWING KEYWORDS

* OR *	ITEM *	AND * [T=M	KFYWOR	D			VECTOR
	1 ?		CONTAMINATE PATHOGENIC	D (ATTRIBUTE) (ATTRIBUTE)			11
****	****	****	*****	******	*****	****	******
THE FOLL	ONING I	TEMS WERE RETR	I FVED		!		
KEYWORD NO	GPOUP KEY	FOUIP /EXPT	WASTE SOURCE NO	WASTF ITEM	12 MEN	QUANTITIE: 50 MEN	100 MEN
•		•	•	TONGUE DEPRESSOR	0.52	2 60	5.20
I	1-1 1	i	1	THERMOMETERS	1 30	6 50	13.00
1	1 1.1	1	1		7 76	38 80	77 60
1	111	i	1	SHEETS	0 52	2 60	5 20
I	1.1 1	1	1 1 1	PACKAGING MATERIAL	7 30	14 60	21 90
i	1.1 1	2	1	MEDICATION TUBES	0 48	8.00	
1	1 1.1	2		SPRAY BOTTLES			14.60
1	1 1.1	2	1	DISPOSABLE FACE MASK	3.65	7.30	10.95
1	1.1 1	2	1	PILL BOXES	3.65	7 30	10.35
ĭ	i.i i	2	ı	MEDICATION BOTTLES	0.20	2.00	3 65
1	1 1 1	2	1	BAND AIDS	0 03	0.08	0 16
ī	ĩ i ĩ	2	1	DPESSINGS AND ADHEST	0.00	0 02	0.08
		_		VFS	0 00	0.00	0.05
1	1 1-1	2	i	CATHETER	0 00	0 00	0 05
Ī	1 1 1	2	1 1 1 1 1 1 1 1 1	ANTISEPTIC SOLUTION	0 04	0 12	0 48
1	1.1.1	2	l.	SPLINT	0 00	0.00	0.10
1	1.1 1	2	1	GLOVES	0.24	0 60	1 04
1	1 1 1	7	ī	EYF PATCHES	0 04	0.40	1.03
1	1.1 1	2	1	PACKAGING	0 75	2.00	3 65
1	1 1 2	1	1	DENTAL PRORE	1 56	15.60	31.20
1	1-1 2	1	1	DENTAL MIRROR	0.26	26 00	52.00
7	1-1-2	1	ı.	EXTRACTION PLIERS	0 00	0 00	0.20
1	112	<u>t</u>	1	SCALPEL	0 00	0.00	0 06
1	1 1.2	1	1	DRUG AND BOTTLE	0.04	0.12	0.16
1	1 1 2	1	1	ANAFSTHETIC BOTTLE	0 00	0 00	0.04
1	1-1-2	1	į.	SYRINGE	0.00	j 00	0.01
Ţ	1 1 2	1	1	HEAD REST COVERING	0 52	5 20	10 40
1	113	_		TRASH HAMPER	0 00	0 00	0.00
1	1 1 3	1	1	WIPFS	24 00	87.60	87.60
t	1 1 3	1	1	AUTOCLAVE CLOTHS-WRA PPINC INSTRUMENTS	2 00	7 00	7 00
1	1 1 3	1	1	PACKAGING MATERIAL	2.00	7 30	7.30
ì	1.1.3	2		TRASH HAMPER	0 00	0 00	0 00
i	1 1 3	ž	1	TRASH HAMPER BAGS	3 60	10 95	10 95
ī	i i.3	ž	ī	WIPES	12 00	43.80	43 80
7	1 1 3	2	ī	AUTOCLAVE CLOTHS-WPA	12 00	36.50	36 50

		_		PPINC INSTRUMENTS	١. ٥٥	2 / 5	2 (6
l	1 1.3	2	1	PACKACING MATERIAL	1 00	3.65	3 65
?	1.2 2	1	1	SOILED SHIRT SHORT S LEEVE	428 00	1787 00	3564 00
2	1 2 2	1	1	. SOILED TROUSERS	609+00	2541 00	5082 00
2	1 2.2	ì	1	SOILED JACKET, LIGHT	9 00	34.00	68 00
2	122	1	1	SOILED UNDERSHOPTS	440 00	1836 00	3672.00
	1 2 2	í	i	SOILED UNDERSHIRTS	440 00	1836 00	3672.00
2	1 2 2	i	i	SCILED SOCKS (PAIR)	103 00	432 00	864 00
2	122	3	i	ARSORBENT WIPES	39.60	160 80	321 60
2 2		1	ì	FILTERS (ODDR CONTRO	51 90	216 30	432 50
	1-4 1	1	1	L1	11 70		452 50
2	1 4 1	i	1	FILTERS (BACTERIA CO NTROL)	2 60	10 80	71 60
2	1 4 1	1	t	WASTE CONTAINER (FILL	940 00	3915 00	7795 00
,	1 4.1	1	2	FILTERS (ODOP CONTRO	51-90	216 30	432 50
2	1 4.1	1	7	L) WASTE CONTAINER (FIL	1397 00	5742 00	11450 00
,	1 441			LFD)			
7	1.4 1	ī	7	FILTEPS (BACTERIAL C ONTROL)	2.60	10.80	21 60
2	1.4.1	1	3	FILTERS (BACTERIAL CONTROL)	2 60	19 89	21 60
?	1 4 1	1	3	WASTE CONTAINER (FILL	2000 00	9333 00	16666 00
7	1 4.1	1	3	FILTEPS, FECAL AND V	240.00	1000.00	2000-00
2		_		*			
	1 4.1	2	1	FILTERS	25.90	109.20	216.40
	1 4.1 1 4.2	2 1	1 2	USED SPOKES	75.90 150 00	109.20 627.00	1254 00
2 2	1 4.2	1 1				•	
2	1 4.2	1	2	USED SPONCES	150 00 88 00	627-00 365 00	1254 00 730 00
2	1 4.2	1	2	USED SPONCES	150 00 88 00 EXPT TOTAL	627-00 365 00 DAILY RAT	1254 00 730 00
5	1 4.2 1 4 7	1	? 3	USED SPONCES USED SPONCE HEADS	150 00 88 00 EXPT TOTAL	627-00 365 00 DAILY RAT	1254 00 730 00 F BATCH SIZE
2 2	1 4.2 1 4 7	1	2 3	USED SPONCES USED SPONCE HEADS	150 00 88 00 EXPT TOTAL ************************************	627-00 365 00 00 00 00 00	1254 00 730 00 F BATCH SIZE *********
2 2 1	1 4.2 1 4 ? 3 2 ? 3 2 2	1 1 1	2 3	USED SPONCES USED SPONCE HEADS	150 00 88 00 EXPT TOTAL	627.00 365 00 Daily Rat	1254 00 730 00 F BATCH SIZE
2 2 1 1 1 1	1 4.2 1 4 ? 3 2 ? 3 2 2 3 2 ?	1 1 1 1 r	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	USED SPONCES USED SPONCE HEADS MEDIA IN TURES SALINE IN TURES SYPINCES	150 00 88 00 EXPT TOTAL ************************************	627-00 365 00 DAILY RAT ********* 0 00 0 00 0 00	1254 00 730 00 F BATCH SITE ************************************
2 2 1	1 4.2 1 4 ? 3 2 ? 3 2 2	1 1 1	2 3	USED SPONCES USED SPONCE HEADS MEDIA IN TURES SALINE IN TURES SYPINCES INNOCULATING NEEDLES POTASSIUM PHOSPHATE	150 00 88 00 EXPT TOTAL ************************************	627-00 365 00 DAILY RAT ********* 0 00 0 00	1254 00 730 00 F BATCH ST7E ************************************
2 2 2 1 1 1 1 1 1 1	1 4.2 1 4 ? 3 2 ? 3 2 ? 3 2 ? 3 ? ? 3 ? ?	1 1 1 1 1 1	2 3	USED SPONCES USED SPONCE HEADS MEDIA IN TURES SALINE IN TURES SYPINCES INNOCULATING NEEDLES POTASSIUM PHOSPHATE BUEEER CONTAINER	150 00 88 00 EXPT TOTAL ************************************	627.00 365 00 DAILY RAT ************************************	1254 00 730 00 F BATCH SIZE ************************************
2 2 2 1 1 1 1 1 1 1 1 1	1 4.2 1 4 ? 3 2 7 3 2 2 3 2 7 3 7 7 3 7 2	1 1 1 1 1 1	2 3	USED SPONCES USED SPONCE HEADS MEDIA IN TURES SALINE IN TURES SYPINCES INNOCULATING NEEDLES POTASSIUM PHOSPHATE BUIEFER CONTAINER PACKACING MATERIAL	150 00 88 00 EXPT TOTAL ************************************	627.00 365 00 DAILY RAT ************************************	1254 00 730 00 F BATCH SIZE ************************************
2 2 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 4.2 1 4 7 3 2 7 3 2 7 3 2 7 3 7 7 3 7 7 3 7 7 3 7 7 3 7 7	1 1 1 1 1 1	? 3 1 1 1 1	USED SPONCES USED SPONCE HEADS MEDIA IN TURES SALINE IN TURES SYPINCES INNOCULATING NEEDLES POTASSIUM PHOSPHATE BUFFER CONTAINER PACKACING MATERIAL CONTAINER	150 00 88 00 EXPT TOTAL ************************************	627-00 365 00 DAILY RAT ************************************	1254 00 730 00 F BATCH SI7E ************************************
2 2 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 4.2 1 4 7 3 2 7 3 2 2 3 2 7 3 7 7 3 7 7 3 7 7 3 4 1 3 4 1	1 1 1 1 1 1	2 3 1 1 1 1	USED SPONCES USED SPONCE HEADS MEDIA IN TURES SALINE IN TURES SYPINCES INNOCULATING NEEDLES POTASSIUM PHOSPHATE BUEER CONTAINER PACKACING MATERIAL CONTAINER SOOWTH MEDIUM	150 00 88 00 EXPT TOTAL ************************************	627-00 365 00 DAILY RAT ************************************	1254 00 730 00 F BATCH SI7E ************************************
2 2 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 4.2 1 4 7 3 2 7 3 2 7 3 2 7 3 7 7 3 7 7 3 7 7 3 7 7 3 7 7	1 1 1 1 1 1	? 3 1 1 1 1	USED SPONCES USED SPONCE HEADS MEDIA IN TURES SALINE IN TURES SYPINCES INNOCULATING NEEDLES POTASSIUM PHOSPHATE BUFFER CONTAINER PACKACING MATERIAL CONTAINER	150 00 88 00 EXPT TOTAL ************************************	627-00 365 00 DAILY RAT ************************************	1254 00 730 00 F BATCH SI7E ************************************
2 2 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 4.2 1 4 7 3 2 7 3 2 2 3 2 7 3 7 7 3 7 7 3 7 7 3 4 1 3 4 1	1 1 1 1 1 1	2 3 1 1 1 1	USED SPONCES USED SPONCE HEADS MEDIA IN TURES SALINE IN TURES SYPINCES INNOCULATING NEEDLES POTASSIUM PHOSPHATE BUFFER CONTAINER PACKACING MATERIAL CONTAINER GROWTH MEDIUM CONGO RED, YEAST, RO TILE ACETIC ACID, BOTTLE	150 00 88 00 EXPT TOTAL ************************************	627-00 365 00 DAILY RAT ************************************	1254 00 730 00 F BATCH SI7E ************************************
2 2 1 1 1 1 1 1 1 1 1	1 4.2 1 4 7 3 2 7 3 2 7 3 2 7 3 7 7 3 7 7 3 7 7 3 4 1 3 4 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	2 3 1 1 1 1 1 1 1 1	WED SPONCES USED SPONCE HEADS MEDIA IN TURES SALINE IN TURES SYPINCES INNOCULATING NEEDLES POTASSIUM PHOSPHATE BUFFER CONTAINER PACKACING MATERIAL CONTAINER SPONTH MEDIUM CONGO REO, YEAST, BO TILE ACETIC AGID, BOTTLE STAIN, BOTTLE	150 00 88 00 EXPT TOTAL ************************************	627-00 365-00 NATEY RAT ************************************	1254 00 730 00 F BATCH SITE ************************************
2 2 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 4.2 1 4 7 3 2 7 3 2 7 3 2 7 3 7 7 3 7 7 3 7 7 3 4 1 3 4 1 3 4 1	1 1 1 1 1 1 1 1	? 3 1 1 1 1 1 1	MEDIA IN TURES SALINE IN TURES SALINE IN TURES SALINE IN TURES SYPINCTS INNOCULATING NEEDLES POTASSIUM PHOSPHATE BUEER CONTAINER PACKACING MATERIAL CONTAINER GROWTH MEDIUM CONGO RED, YEAST, BO TILE ACETIC ACID, BOTTLE PASTEUR PIPETTE	150 00 88 00 EXPT TOTAL ************************************	627-00 365-00 DAILY RAT ************************************	1254 00 730 00 F BATCH SI7E ************************************
2 2 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 4.2 1 4 7 3 2 7 3 2 7 3 7 7 3 7 7 3 7 7 3 4 1 3 4 1 3 4 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	2 3	MEDIA IN TURES SALINE IN TURES SALINE IN TURES SALINE IN TURES SYPINCES INNOCULATING NEEDLES POTASSIUM PHOSPHATE BUFFER CONTAINER PACKACING MATERIAL CONTAINER GROWTH MEDIUM CONGO RED, YEAST, BO TILE ACETIC ACID, BOTTLE STAIN, BOTTLE PASTEUR PIPETTE PIPETTE BULB	150 00 88 00 EXPT TOTAL ************************************	627.00 365.00 DAILY RAT ************************************	1254 00 730 00 F BATCH SIZE ************************************
2 2 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 4.2 1 4 7 3 2 7 3 2 7 3 7 7 3 7 7 3 7 7 3 4 1 3 4 1 3 4 1 3 4 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	2 3 1 1 1 1 1 1 1 1	MEDIA IN TURES SALINE IN TURES SALINE IN TURES SALINE IN TURES SYPINCTS INNOCULATING NEEDLES POTASSIUM PHOSPHATE BUEER CONTAINER PACKACING MATERIAL CONTAINER GROWTH MEDIUM CONGO RED, YEAST, BO TILE ACETIC ACID, BOTTLE PASTEUR PIPETTE	150 00 88 00 EXPT TOTAL ************************************	627.00 365.00 DAILY RAT ************************************	1254 00 730 00 F BATCH SI7E ************************************
2 2 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 4.2 1 4 7 3 2 7 3 2 7 3 2 7 3 7 7 3 7 7 3 4 1 3 4 1 3 4 1 3 4 1 3 4 1		2 3 1 1 1 1 1 1 1 1 1	WEED SPONCES USED SPONCE HEADS MEDIA IN TURES SALINE IN TURES SYPINCES INNOCULATING NEEDLES POTASSIUM PHOSPHATE BUFFER CONTAINER PACKACING MATERIAL CONTAINER GROWTH MEDIUM CONGO REO, YEAST, RO TILE ACETIC ACID, BOTTLE STAIN, BOTTLE PASTEUR PIPETTE PIPETTE BULB STYLES-MOORE CHAMBER PACKAGING MATERIAL	150 00 88 00 EXPT TOTAL ************************************	627-00 365-00 TAILY RAT ************************************	1254 00 730 00 F BATCH SITE ************************************
2 2 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 4.2 1 4 7 3 2 7 3 2 7 3 7 7 3 7 7 3 7 7 3 4 1 3 4 1 3 4 1 3 4 1 3 4 1	1 1 1 1 1 1 1 1 1 1 1	2 3 1 1 1 1 1 1 1 1 1	MEDIA IN TURES SALINE IN TURES SALINE IN TURES SALINE IN TURES SYPINCTS INNOCULATINO NEEDLES POTASSIUM PHOSPHATE BUEER CONTAINER PACKACINO MATERIAL CONTAINER CONGO RED, YEAST, RO TILE ACETIC ACID, BOTTLE STAIN, BOTTLE PASTEUR PIPETTE PIPETTE BULB STYLES-MOORE CHAMBEP PACKAGINO MATERIAI CAS RESERVOIR FLASK	150 00 88 00 EXPT TOTAL ************************************	627-00 365-00 DAILY RAT ************************************	1254 00 730 00 F BATCH SI7E ************************************
2 2 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 4.2 1 4 7 3 2 7 3 7 7 7 3 7 7 7 3 7 7 7 3 4 1 3 4 1 3 4 1 3 4 1 3 4 1 3 4 1		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	WEED SPONCES USED SPONCE HEADS MEDIA IN TURES SALINE IN TURES SYPINCES INNOCULATING NEEDLES POTASSIUM PHOSPHATE BUFFER CONTAINER PACKACING MATERIAL CONTAINER GROWTH MEDIUM CONGO REO, YEAST, RO TILE ACETIC ACID, BOTTLE STAIN, BOTTLE PASTEUR PIPETTE PIPETTE BULB STYLES-MOORE CHAMBER PACKAGING MATERIAL	150 00 88 00 EXPT TOTAL ************************************	627-00 365-00 DAILY RAT ************************************	1254 00 730 00 F BATCH SIZE ************************************
2 2 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 4.2 1 4.7 3 2 7 3 2 7 3 7 7 3 7 7 3 7 7 3 4 1 3 4 1		2 3 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	MEDIA IN TURES SALINE IN TURES SALINE IN TURES SALINE IN TURES SYPINCTS INNOCULATINO NEEDLES POTASSIUM PHOSPHATE BUEER CONTAINER PACKACINO MATERIAL CONTAINER CONGO RED, YEAST, RO TILE ACETIC ACID, BOTTLE STAIN, BOTTLE PASTEUR PIPETTE PIPETTE BULB STYLES-MOORE CHAMBEP PACKAGINO MATERIAI CAS RESERVOIR FLASK	150 00 88 00 EXPT TOTAL ************************************	627.00 365.00 DAILY RAT ************************************	1254 00 730 00 F BATCH SI7E ************************************

1	3.4.1	1	2	SYPINGE	0.16	0 00	0 01
í	3 4.1	ī	2	LYOPHILIZING MILK IN	24.00	0 00	0.02
•		•	•	TURES			
1	3.4 1	1	2	PACKAGING MATERIAL	0.72	0.00	0 06
î	3.4.1	i	2 ,	FORMALDEHYDE	0.00	0.00	0 00
î	3.4.1	i	3	LYOPHILIZED MICROORC	0.09	0 00	0.03
	10 TO L	•		ANISMS AND TUBE	• • •		*
1	3.4.1	1	3	MEDIA IN PLATES	4.50	0.05	0 00
-				SYRINGES	0-22	0.00	0 00
1	3.4. I	1	3			0.00	0.04
1	3 4.1	1	3	INNOCULATING NEEDLES	0-48		0.00
1	3-4-1	1	3	PACKACING MATERIAL	1.80	0 02	
I	3-4 1	7	1	CONTAINER	0.60	0.00	0.20
1	3.4.1	2	1	GROWTH MEDIUM	0.30	0.00	0.10
1	3.4.1	2	1	ACETIC ACID, BOTTLE	0.12	0.00	0 04
1	3 4.1	2	1	STAIN, BOTTLE	0.12	0 00	0 04
1	3 4 1	7	1	PASTFUR PIPETTE	0 90	0.01	0 00
1	3 4 1	2	1	PIPETTE BULB	0 04	0.00	0 00
1	3.4.1	2	1	STYKES-MOORE CHAMBER	1.80	0.02	0 00
1	3 4 1	?	1	PACKAGINC MATERIAL	0.75	0 00	0.25
ī	3.4 1	3	ī	TISSUE CULTUPE DISH	0 05	0.00	0 05
1	3.4 1	3	ī	TISSUF CULTURE TUBES	2.40	0 00	0.70
î	3 4 1	3	î	SLIDES	0.90	0 01	0 00
i	3.4 1	3	î	FORCEPS	2 70	0.03	0 00
ì	3.4.1	ž	ī	SCISSORS	6.30	0.07	0 00
i	3 4 1	3	ì	TISSUE CULTURE MEDIA	2.40	0 00	0.80
1	2 4 1	,	1	ROTTLE	2.4-0	0 00	0.00
1	3.4 1	3	1	TISSUE CULTURE MEDIU	2.40	0.00	0 80
			_	M REHYDRATING			
1	3 4.1	3	1	STAIN AND BOTTLE	0.12	0 00	0 04
1	3 4.1	3	1	SYRINGE	1.17	0.00	0.03
1	3.4 1	3	1	TISSUE CULTURE GRID	0.00	0 00	0 02
1	3.4.1	3	1	HEAMOCYTOMETER	9.00	0.10	0 00
1	3.4 1	3	1	PACKAGINC MATERIAL	2.70	0.03	0.00
1	3-4 1	3	2	SYRINGFS	0 31	0 00	0 03
1	3 4.1	3	2	TISSUE CULTURE MEDIU	0.60	0.00	0.20
î.	3 4 1	3	2	M BOTTLF REHYDRATING FEUID BO	0.60	0.00	0.20
L	7 4 1	9	۷.	TTLF	1,200	0.00	00
		•	2	FORCEPS	0.36	0.00	0.03
1	3.4 1	3	2	PACKAGING MATERIAL	0.12	0.00	0.01
1	3.4.1	3	2		2 70	0.03	0 00
1	3.4.1	4	1	PETRI DISH AND ECG S HELL	7 10	0 03	0 00
•	1 4 1	4	1	CURVED FORCEPS	2.70	0.03	0.00
1	3.4.1		_	STRAIGHT FORCEPS	2.70	0.03	0.00
?	3.4.1	4	1	SCISSORS	6.30	0.03	0.00
1	3 4 1	4	1	*			
1	3 4.1	4	1	PACKAGING MATERIAL	2.70	0.03	0 00
1	3 4.1	5	1	MICROORGANISMS, TUBE DISTILLED WATER	0 90	0 00	0.30
1	3.4 1	5	1	PHAGE, TUBE, DISTILL FD WATER	1.80	0 00	0.60
1	3-4 l	5	l	MEDIA IN TUBES	12.00	0.00	1.00
i	3-4 1	5	i	MEDIA IN PLATES	6.00	0.00	0.50
ī	3 4 1	Ś	î	INNOCULATING NEFOLES	0 30	0 00	10 25
i	3 4 1	ś	i	SYRINCES	0.39	0.00	0 13
î	3 4 1	ś	i	LYOPHILIZING MILK IN	1.20	0.00	0 10
~	→ + k	-	•	TURES		-	
1	3-4 1	5	1	PAPER TOWELS	5 40	0 06	0 00

				,			
ì	3.4.1	5	i	PACKAGING MATERIA	9 00	0 00	0 25
ī	3.4.1	6	i	LYOPHILIZED NEUROSPO RA, H29, TUBES	1 56	0.00	N 57
ı	3 4.1	6	1	LAGABLIZING WIFK IN THEE	1.20	0 00	0-40
1	3.4 1	6	ı	MEDIA IN TURES	4 80	0 00	0 40
î	3 4 1	6	i	SYRINCES	0.72	0 00	0.24
i	3 4.1	6	ī	INNOCULATING NEEDLES	0 48	0 00	ቦ ሰላ
ì	3 4 1	6	ï	PAPER TOWELS	5 40	0 06	0 00
î	3 4.1	7	ī	REAGENT BOTTLES	7.20	0.00	0.16
2	3.4.1	7	i	PAPER TOWELS	5.40	0 06	0 00
î	3 4 1	ż	î	COLORIMETRIC BLANKS	7.20	0.08	0.00
i	3.4.1	ż	ī	PACKAGING MATERIAL	0.54	0.00	0 02
ì	3.4.2	i	i	YEAST SOLUTION. BOTTL	0.17	0.00	0 04
1	3 4 7	1	1	HATCH CLASS	9.00	0.10	0.00
î	3.4.2	1	1	COUNTING PLATE	9.00	0 10	0 00
ī	3 4 2	ī	1	FORCEPS	2.79	0.03	0 00
ì	3 4 2	ï	1	BRUSH I	279	0 93	6.00
ï	3 4 ?	1	1	ANAFSTHESIZING CHAMB !	18 00	0 20	0 00
1	3 4 2	1	1	PACKACING MATERIAL	0.75	0.00	0.25
ī	3 4.2	ĩ	1	FFFFS	0.00	0.00	0 00
ĩ	3 4 2	ž	ĩ	WIPE MESH SIFTER	10 80	0.12	0 00
i	3 4.2	ž	i	BOTTLE	9.00	0 10	0 00
î	3 4 2	2	ī	SPATULA	0 90	0.01	0.00
î	3.4 2	- 2	i	FORCEPS	6.30	0 07	0.00
î	3 4 2	,	ī	FFCES	n 00	0.00	0.00
î	3 4 2	4	ī	FECFS	0 00	0 00	0 00
î	3.4.7	4	ĩ	COUNTING PLATE	9.00	0 10	0.00
i	3 4 2	4	i	FORCEPS	6 30	0 07	0.00
ì	3.4.2	4	ī	BRUSH	2 79	0.03	0 00
ì	3 4 . 2	4	i	COTTEN PLUG. GAUZE	1.44	0.16	0 00
î	3 4.2	4	ī	PACKAGING MATERIAL	3 00	0.00	0.25
i	3 4 2	5	ž	VIALS	54 00	0 60	0.00
i	3.4 2	5	2	COTTEN PLUGS	14 40	0.16	0 00
i	3 4.2	5	2	HANEY, DROPPING BOTTL	0.48	0.00	0 04
1	3.4 2	5	2	FORCEPS	6 38	0 07	0 00
i	3 4 2	5	2	ANAFSTHESTAINC CHAMP	18.00	0 20	0.00
ı	3 4 2	5	7	BPUSH	2 79	0.03	0-00
1	3.4 2	5	2	WATCH GLASS	9.00	0.10	0.00
ĩ	3 4 2	5	2	WIRE MESH CACE	1 50	0.00	1.50
ì	3 4 2	5	2	FFCFS	0.00	0 00	0 00
1	3 4.2	6	1	BFLL JAR	1.20	0.00	0-40
ī	3 4.2	6	Ĭ	WIRE MESH	0.36	0.00	0 12
ī	3 4.2	6	1	CHPESE CLOTH	0.03	0.00	0.01
i	3 4 2	6	ì	HATCH GLASS	9 00	0.10	0.00
ī	3.4.2	6	1	FORCEPS	6.30	0.07	ი იი
i	3 4 2	6	ī	FFCES	0.00	0 00	0.00
ì	3 4 2	6	ĩ	PACKACING MATERIAL	0 90	0 01	0 00
ì	3 4 2	6	2	ADUARIUM TANK	49.00	0 00	16 00
i	3 4 2	6	ž	HATED	5 40	0 00	1-80
i	3.4 2	6	,	AQUATIC PLANTS	0.54	0.00	0.18
i	3 4 2	6	2	DAPHNIA CONTAINER	0.60	0 00	0.20
î	3.4.2	6	2	YEAST AND DROPPING P	0.12	0 00	0.04
4	24746	*/	-	* # -1 1 # ESESS NO 1914 1 # 1100 1			()

				1			
				OTTLE	0.75	0.00	0.25
1	3 4.2	6	2	PACKAGING MATERIAL	54.00	0.60	0.00
1.	3 4.7	7	I	VIALS		0.16	0.00
1	3 4 2	7	1	COTTON PLUGS	14 40	0.20	0.00
1	3 4 2	7	1	ANAESTHESIZING CHAMB	18-00	0.20	0.00
		_	•	ER FORCEPS	6.30	0 07	0.00
1	3.4.2	7	ļ	BRIJSH	2 79	0.03	0 00
1	3.4 2	7	1		9 00	0 10	0.00
1	3 4.2	7	1	WATCH CLASS	1 50	0.00	1 50
1	3.4.2	7	1	WIRE CACE	3.00	0.00	0.25
1	3 4.2	7	1	PACKAGING MATERIAL	0 00	0.00	0.00
1	3 4 2	7	1	FFCFS /	1 50	0.00	1.50
1	3.4 2	7	2	WIRE MESH CAGE	-	0 00	0.00
1	3 4.2	7	2	FFCES	0.00		0.05
1	3 4 2	7	2	PACKAGING MATERIAL	0 60	0.00	0.00
t	3 4 3	7	1	CAGES (3)	270.00	4 50	0 00
1	3 4 3	1	1	FOOD DISH	2 70	0.04	
1	3.4.3	1	1	WATER BOTTLE	45 00	0.75	0 00
ì	3 4.3	1	1	URINE, FFCES, PAPER TO	28 20	0 47	0 00
-				WELFECAL COLLECTRAG			
L	3.4.3	1	1	PACKAGING MATERIAL	1 20	0.02	0.00
ī	3 4.3	?	1	CACES (24)	12140.00	36.00	0 00
ì	3 4.3	?	1	SYRINGES	8.11	0.00	0.16
î	3 4 3	2	1	GAUZE PADS.ALCOHOL	1 25	0.00	0.02
î	3 4.3	2	1	WATER BOTTLE	2190 00	61.00	0 00
ĩ	3.4 3	2	1	FOOD DISH	132.40	0.36	0.00
î	3.4 3	2	i	PACKAGING MATERIAL	14 60	0.04	0 00
ĩ	3 4 3	2	ī	URINE, FFCFS, PAPER, FE	1445.40	3.96	0.00
•	, , ,	-		CAL COLLECTION RAG			
ı	3.4 3	2	2	CAGES	3295.00	9.00	0.00
i	3.4 3	ž	2	FOOD DISH	65.70	0.18	0 00
ĩ	3 4 3	2	2	WATER BOTTLE	1095 00	0 00	0.00
ì	3.4 3	2	2	PACKAGINC	7.30	0 02	0.00
ì	3 4.3	ż	2	FFCFS.URINE, PAPER TO	730 00	2.00	0.00
1	, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	_	-	WEL FECAL COLLECTBAG			
ı	3.4 3	2	3	CAGES	2190 00	6 00	0.00
i	3.4 3	ž	3	WATER BOTTLE	365.00	1 00	0 00
i	3 4.3	ž	3	FOOD DISH	21 90	0 06	0.00
î	3.4 3	2	3	WIPES.BACTERICIDE.HA	51 10	0.14	0.00
-	,	-		IR			
1	3 4.3	2	3	FFCES, URINE, PAPER TO	230.90	0.66	0.00
•	, ,,,,	-		WFL.FECAL COLLECTRAG			
1	3 4 3	2	3	PACKAGINC MATERIAL	3 65	0 01	0.00
i	3.4 3	2	4	CAGES	3285 00	9 00	0 00
î	3 4.3	2	4	FOOD DISH	722 70	1.98	0.00
ī	3.4.3	2	4	WATER DISH	350.40	0.96	0.00
ì	3.4.3	7	4	FFCAL COLLECTION BAC	408 80	1.12	0.00
-	36 16 3			,FFCFS,PAPER TOWEL			
1	3 4.3	3	1	CAGES (4)	540.00	6.00	0.00
ĩ	3.4.3	3	1	WIPFS WITH BACTERCIO	12 60	0.14	0.00
ι	3 4 3	3	1	URINE, FECES, PAPER TO	36 90	0 41	0 00
		-		WFL, FECAL COLLECTRAC	5.40	0.06	0 00
1	3 4 3	3	1	FOOD DISH	90.00	1.00	0 00
1.	3.4.3	3	1	WATER BOTTLE	0.94	0 00	0.08
1	3.4.3	3	1	SYRINGF	0.14	0 00	0.03
1	3 4.3	3	1	GAUZE PADS+ALCOHOL	V+14	9 00	V4-7)

TABLE 0-5 (Cont'd)

ì	3 4.3	3	1	PACKAGING MATERIAL	2.70	0 03	0.00
ì	3 4 3	3	i	WATER BOTTLE	90 00	1 00	0.00
1	3 4.3	ź	2	CAGE PACKS	810.00	0 09	0.00
	3.4.3	3	2	FOOD DISH	8 10	0-00	0.00
1		3	2	URING. COLLECTION BAC	70 20	0.78	ດັດດ
1	3 4.3			FFCFS.COLLECTION BAC	48 60	0.51	0.00
ĭ	3 4 3	3	2			0 00	0.31
Į.	3.4 3	3	2 }	SYPINGES	0.62	0 00	0 05
Ł	3 4 3	3	7	GAUZE PARS-ALCOHOL	0.10		
1	3 4 3	3	2	WIPES, RACTERICIDE, HA	16.70	8 1 .0	0 00
1	3.4.3	3	?	PAPER TOWEL, ANIMAL H	5140.00	0 06	0.00
1	3 4.3	3	2	WATER ROTTLE	135 00	1.50	0.00
ī	3.4.3	3	2	PACKAGING MATERIAL	7 70	0 03	0.00
î	3 4.3	4	ι	MACERATED TESTES BOT	0 02	0.00	0 02
1	3 4.3	4	1	FIXATIVE SOLUTION BO	0 04	0 00	0 04
				TTLF			
2	3.4 3	4	1	SYRINCE	0.01	0 00	0.01
ì	3 4 3	4	1	EUB CEB2	0.35	0 07	0 00
ì	3 4.3	4	i	PACKAGING MATERIAL	0 05	0.01	0 00
i	3.4 3	5	1	FFCAL COLLECTION BAC +WATER+FFCES+URINF	19 14	0.00	6 14
1	3 4 3	5	1	CONTAINERS	72 00	0 0 0	24 00
ĩ	3 4 3	5	ì	SAND	18 00	0 00	6.00
i	3 4 3	5	î	AQUATIC PLANTS	1 62	0.00	0 54
	3 4 3	5	î	PACKAGING MATERIAL	0.06	0.00	0.02
1		-	i	CAGES (4)	316.00	0.41	0.00
1	3 4 3	5	-			0.14	0 00
1	3 4 3	6	1	WIPES WITH BACTERICI	7.84	0.14	0 00
1	3 4 3	6	1	DF, HAIR PAPER TOWEL, FFCES, UR INF, FFCAL COLLECTBAG	27.96	0 00	0 00
	3 4 3	6	ı	FODO OTSH	3.36	0.06	0 00
1	3 4 3			WATER BOTTLE	56.00	1 00	0 00
Į.		6	į				
I	3 4 3	6	1	PACKAGING MATERIAL	1 12	0 02	0 00
1	3 4 3	7	1	CACES (4)	540 00	6.00	0.00
ţ	3 4 3	7	1	FOOD DISH	5.40	0 06	0.00
t	3.4.3	7	1	WATER BOTTLE	90 00	1.00	0.00
1	3 4 3	7	1	THERMISTER PROBE	1 08	0.01	0 00
1	3 4 3	7	1	ADHESIVE TAPE	0.36	0.00	0 00
1	3.4.3	7	1	PACKAGING MATERIAL	1 80	0 02	0 00
i	3.4.3	8	Ī	CACES	9.00	0 00	9.00
î	3.4.3	8	i	PACKACING MATERIAL	0 25	0.00	0 01
ì	3 5.1	ý	i	MEDIA IN PLATES AIRE	234 00	0 00	4 50
r	7 7.1	7		CULAR	274 00	0 00	7 70
1	3.5.1	q	1	MEDIA IN PLATES BIRD	208.00	0.00	4 00
	351	9	1	MEDIA IN TUBES	32 84	0 00	0.67
1	3 5.1	9	1	SYRINGES	1 56	0.00	9.30
į		9	i	SWARS	0.31	0.00	0.06
1	3 5.1						
1	3 5.1	9	ī	[1005	0 14	0 00	102.00
1	3 5 1	9	1	STATNING PAPER	0.14	0 00	0.02
t	3 5.1	9	1	SLYDES	0 57	0 00	10 0
t	351	ð	1	PACKAGING MATERIAL	13 00	0 00	0.25
1	351	9	?	MEDIA IN PLATES A)RE	754 00	0.00	14 50
				CULAR (154/WEEK)			
1	351	q	?	MEDIA IN PLATES RIPO	46 80	0.00	0 90

				DΛC			
1	3.5.1	9	2	TURED MEDIA AL LIQUI	62.40	0.00	1.20
				D (49/4EFK)			
ı	3.5.1	9	2	TURED MEDIA R) SOLID	140 40	0 00	2 70
				(108/HEEK)			
1	3.5 l	9	2	TONGTIE OFPRESSORS (6	0.78	0.00	0.01
			_	/WEFK)	1	0.00	0.00
1	3.5.1	9	2 2	SWABS (32/HEEK)	4 16	0.00	0 08 0 38
1	3 5.1	9	2	SYRINGE (6/WEEK)	41-60		-
1	3.5 1	9	2	INNOCULATING LOOPS (7 28	0.00	0 14
				54/WEEK1		0.00	
1	3 5 l	9	7	INNOCULATING NEEDLES	7 28	0.00	0.14
1	3.5 1	9	2	EMPTY SENSITIVITY DI	12.20	0.00	0.10
				SC CONTAINERS ;			
1	3.5.1	9	2	EMPTY DISC CONTAINER	0 67	0.00	0.06
				\$			
1	3.5.1	9	2	MICROSCOPE SLIDES '	2+08	0 00	0.04
1	3 5.1	9	2 2	STAINING PAPER	3.12	0.00	0.06
i	3.5 1	. 9	2	FORCEPS	0 03	0.00	0.03
1	3.5 1	9	2	PACKAGING MATERIAL	7 50	0.00	0.15
ī	3.5 1	9	3	MFDIA IN PLATES	115.00	0.71	0.00
ī	351	9	3	INNOCULATING LOOPS	1 60	0.01	0.00
ĩ	3 5.1	9		STAINING PAPER	1 60	0 02	0.00
î	3.5 1	9	3 3	MICROSCOPF SCIDE	0.41	0.00	0.00
i	3.5.1	9	3	PACKACING MATERIAL	2 60	0 40	0 00
ï	351	9	4	CAUTE PADS. ALCOHOL	1 13	0.00	0.02
î	3 6 1	i	1	AIR	10 25	0 56	0 11
Ť	3 6.1	į	ī	NTTROGEN	0 49	0,49	0 10
ī	3.6 2	ī	ī	AIR	125 86	5.37	0 97
î	3 6.2	î	î	NITROGEN	4 69	4.69	0.94
1	3 6 7	î	î	WATER	125 00	0.00	0 00
i	3.6.3	î	ī	Atr	24.00	3.40	0.41
T	16949	Ł	*	C1 1 1 1	2.220		

FAIRCHILD HILLER

TABLE 0-6 SEARCH REPORT #4 - MATERIALS GENERATED IN BIO LABORATORY AND IS SOLID

SEARCH NO 4

THE SEAPCH HAS USED . AND . LOGIS ON THE FOLLOWING KEYWOPDS

TORTITEM TANDITEM	KFYWORD	VFCTOR
1	BIO-LABORATORY (A	PF8} ?
2	SOLID (STATE)	10
*****	****	************

THE FOLLOWING ITEMS WERE RETRIEVED

KEYWOPN	GROUP	EQUIP /FXPT	WASTE	WASTE ITEM	(DUANTITIES	;
NO.	KEY	NO	SOURCE NO		EXPT TOTAL DA	ILY RATE	BATCH SITE
, -			•••		*****	****	****
*	3.4 1	1	1	CONTAINER	0.60	0.00	0.20
広	3 4 1	1	1	CONCO RED. YEAST. BO	9-12	0 00	0 04
		-		TTLF			
*	3 4 1	1	Ŧ	ACFTIC ACID, BOTTLE	0 12	0 0 0	0 04
*	341	i	I.	STAIN. POTTLE	0 12	ი იი	0 04
*	3 4 1	1	1	PASTFUR PIPETTE	0 90	0.01	0 00
*	3 4 I	1	1	PIPETTE RULB	0 04	0.20	0 00
*	3 4 1	1	1	STYLES-MOORE CHAMBER	1 80	0 02	0 00
*	3 4.1	1	1	LICHT BULB	0 03	0 00	0 03
*	3 4 1	1	1	PACKAGING MATERIAL	0 75	0 00	0.25
*	3 4 1	1	7	GAS RESERVAIR FLASK	0 20	0 00	0.20
**	3 4 1	1	2	GAS RESERVOIR BOTTLE	0 20	0 00	0 20
#	3 4 1	1	2	CULTURE MEDIUM BOTTE	2 40	0.00	0.20
			,	Ę			
*	3 4 1	1	?	CULTURE FLASK	0 20	0.00	0 27
*	3.4.1	1	2	SYRINCE	9-16	0.00	9 01
*	3 4 1	1	7	TURES	24.00	0 00	0 02
*	3 4 1	1	2	PACKAGING MATERIAL	0 72	0.00	0 06
*	3 4 - 1	ï	3	LYTIPHILIZED MICRODEC	0.09	0.00	0 03
				ANISMS AND TUBE			
*	3 4 1	ι	3	MEDIA IN PLATES	4.50	0 05	0.00
*	3 4.1	1	3	MEDIA IN TURFS	18.00	0.01	0 00
*	3 4.1	1	3	SYPINGES	0 27	0.00	0.00
*	3 4 1	1	3	INNOCULATING NEEDLES	0.48	0.00	0.04
*	3 4 1	t	3	PACKAGING MATERIAL	ኒ ዓባ	0 02	0 00
*	3 4 1	?	1	CONTAINER	0.60	0 00	0 20
*	3 4.1	2	1	CONCO RED, YEAST, BO	0 12	0 00	0 04
*	3.4 1	2	1	ACTTIC ACID, BOTTLE	0.12	0 00	0_04
*	3 4 L	?	ī	STAIN. BOTTLE	0 12	0.00	0 04
*	3 4 1	2	1	PASTFUR PIPETTE	0-90	0 01	o no
*	3 4 1	2	1	PIPETTE PULB	0 04	0.00	0 00
*	3 4 - 1	2	1	STYKES-MODRE CHAMBER	1.80	0.02	0 00
*	3 4 1	,	Ĩ	LICHT BULR	0 03	0 00	0 03
*	3 4.1	2	ī	PACKAGING MATERIAL	n 75	0.00	0 25
		-	•	1	• •		-

*	3.4.1	3	1	TISSUE CULTURE DISH	0 05	0.00	0.05
*	3 4 1	3	1	TISSUE CULTURE TURES	2 40	0 00	0.20
*	3 4 1	3	ĩ	SLIDES	0 90	2.01	0 00
*	3.4.1	3	ī	EURCEPS	2,70	0.03	0.00
	-	3	'n	SCISSORS	6.30	0 07	0.00
*	3-4-1	3	i	TISSUE CULTURE MEDIA	2 40	0.00	0.80
*	3 4.1	3	1	BOTTLE	4 10		• • • • • • • • • • • • • • • • • • • •
	3 4 1	3	1	TISSUF CULTURE MEDIU	2 40	0 00	0.80
T.	2 4 7	a	•	1 M REHYDPATING	-		
*	3.4.1	3	1	STAIN AND BOTTLE	0 12	0 00	0+04
*	3 4 1	á	î	SYRINGF	1 17	0 00	0.03
*	3.4.1	3	i	TISSUE CULTURE GRID	0.00	0 00	0+02
	**: 7	3	ì	HEAMOCYTOMETER	9.00	0 10	0 00
*	3 4-1	3	i	PACKAGING MATERIAL	2 70	0-03	0.00
*	3.4.1		2	SYRINGES	0 31	0.00	0.03
*	3 4 1	3		TISSUE CULTURE MEDIU	9.60	0.00	0 20
*	3.4 1	3	2	M ROTTLE	0.00	0.00	0 20
	2 / 1	3	2	REHYDRATING FLUID BO	0.60	0.00	0.20
*	3.4.1	3	•	TTLE			3020
*	3.4.L	. 3	2	FORCEPS	0.36	0.00	0.03
		3	ž	PACKACING MATERIAL	0.12	0.00	0-01
*	3.4.1			PETRI DISH AND EGG S	2 70	0 03	0.00
*	3.4 1	4	1	HFIL	7 70	0 0 3	0.00
*	3 4 1	4	1	CHRVED FORCEPS	2 70	0 03	0 00
*	3.4.1	4	î	STRAIGHT FORCEPS	2 70	0 03	0 00
*	3.4 1	4	ì	SCISSORS	6.30	0 07	0.00
*	-	4	i	PACKAGING MATERIAL	2 70	0 03	0 00
•	3 4 1	4	i	PAPER TOWEL	0.90	0.01	0.00
*	3 4 1	,	-	MICPODRGANISMS, TUBE	0.90	0 00	0.30
*	3 4 L	5	i	• DISTILLED WATER	0.70	0 00	0.50
		~		PHAGE, TUBE, DISTILL	1 80	0.00	0.60
*	3.4.1	5	1		1 00	0 0.7	0.00
		_			12.00	0 00	1 00
*	3.4.1	5	1	MFDIA IN TUBES	6.00	0 00	0.50
*	3 4 1	5	1	MEDIA IN PLATES		0 00	10.25
*	3 4.1	5	1	INMOCULATING NEEDLES	0 30		_
*	3.4 1	5	I	SYRINGES	0 39	0 00	0.13
*	3 4 1	5	1	TYPHILITING MILK IN	1 20	0 00	0.10
		_		TIBES	5.40	0.06	0.00
*	3.4 1	5	1	PAPER TOWELS	3 00	0.00	0-25
*	3 4 1	5	1	PACKAGING MATERIAL	1 56	0.00	0 52
*	3.4.1	6	1	LYOPHILIZED NEUROSPO RA, H2O, TUBES	1 20	0.00	0 52
					1 20	0 00	0.40
*	3.4.1	6	1	LYOPHILIZING MILK IN TURES	1 20	0 00	0.40
*	3.4.1	6	1	MEDIA IN TUBES	4 80	0.00	0.40
*	3 4.1	6	î	SYRINGES	0 72	0 00	0.24
*	3 4 1	6	i	INNOCULATING NEEDLES	0.48	0 00	0.04
	-		i	PAPER TOWELS	5.40	0 06	0.00
*	3.4 1 3.4 1	6	1	PACKAGING MATERIAL	3 00	0 00	0 25
*	• • •	6 7	1	REAGENT BOTTLES	7 20	0.00	0.16
*	3 4.1			PAPER TOWELS	5.40	0 06	0.00
*	3.4.1	7	1	COLORIMETRIC BLANKS	7 20	0 08	0.00
*	3.4.1	7	1		0 08	0.00	0 03
*	3 4 1	7	1	DEFECTIVE BULB		0.00	0.02
*	3.4 1	7	1	PACKAGING MATERIAL	0 54		0.07
*	3.4 2	1	1	YEAST SOLUTION, BOTTE	0 12	0 00	0+04
				F HATCH CLASS	9.00	0 10	0.00
*	3 4 2	1	1	WATCH GLASS	7.00	0.10	(1400

FAIRCHILD MILLER

TABLE 0-6 (Cont'd)

				COUNTING PLATE	9 00	0.10	0.00
•	3.4.2	1	1			0.03	0.00
*	3 4 2	1	1	FOPCEPS	2 79		
*	3.4 2	1	1	RPUSH _	2.79	0.03	0 00
*	3 4 7	1	1	BOTTLE WITH ANAESTHE SIZING ACENT	0.24	0 00	n. 94
*	3 4-2	1	1	ANAFSTHESIZING CHAMP	18 20	0 20	0.00
*	3.4 2	t	1	DEFECTIVE MICROSCOPE	0 06	0 00	0 02
		•	•	LAMP PACKAGING MATERIAL	0.75	0 00	0.25
*	3 4 2	1	1		•	0.00	0 00
*	3 4.2	1	ì	FECFS	0.00		-
*	3 4.2	2	ì	WIPE MESH SIFTER	10.30	0.12	0.00
*	3.4 2	2	1	POTTLE	9 00	0 10	0 00
*	3 4 2	2	ı	SPATULA	0 90	0.01	0.00
*	3 4 2	2	1	BRUS4	2.79	0 03	0 00
\$	3 4 7	7	1	FORCEPS	6 30	0 07	0.00
*	3.4.2	ż	ī	PACKAGING MATERIALS	1 50	0 00	0.25
10		2	_	FECES	0 00	0.00	0.00
	3 4 2		ļ	FFCFS	2.00	0 00	0 00
*	3 4.2	4	Ţ	OPOPPING BOTTLE WITH	7 72	0.00	0.06
*	3 4 2	4	1	MILK AND HATES	7 12		
*	3 4.2	4	1	ANAFSTHESIZING CHAMP FR	18 90	0.20	0 00
*	3 4 2	4	1	WIRE MESH CAGE	1 50	0 00	1 50
*	3 4 - 2	4	ī	WATCH GLASS	9 00	0.10	0 00
zh.	3 4.2	4	ï	COUNTING PLATE	9 00	0 10	0 00
*	3 4 2	4	ī	FORCEPS	5 30	0.07	0 00
*		4	_	BRUSH	2 79	0.03	0.00
			1			0 16	0.00
*	3 4 2	4	1	COTTEN PLUG, GAUZE	1.44		
*	3.4 2	4	1	PACKAGING MATERIAL	3 00	0.00	0 25
*	3 4-2	5	2	VIALS	54.00	0 60	0.00
*	3 4 2	5	2	COTTEN PLUGS	14.40	0.16	0.00
*	1.4 2	5	7	HONEY, DROPPING BOTTL	0.48	0.00	0-04
*	3.4 2	5	2	FORCEPS	6 38	0 07	0 00
n	3 4.2	5	2	ANAESTHESIZING ACENT , DROPPING BO	0.48	0 00	0.04
*	3.4 2	5	2	ANAFSTHESIZING CHAMB	18 00	0.20	0 00
				FR	5.00	0.00	0.25
*	3 4 2	5	?	PACKAGINC MATERIAL	3 00		0.25
*	3 4 2	5	2	RPUSH	2.79	0 03	0.00
*	3 4 2	5	?	WATCH GLASS	9 00	0 10	0.00
*	3.4.2	5	2	MIRE WESH CACE	1,50	0 00	1 50
*	3.4 2	5	?	FFCFS	0 00	0 00	0.00
*	3 4 2	6	i	BFLL JAP	1 20	0.00	0 40 `
*	3 4 2	6	1	WIRE MESH	0.36	0.00	0 12
*	3.4 2	6	ĩ	CHFESE CLOTH	0 03	0 00	0.01
	3.4.2	6	î	WATCH GLASS	9 00	0 10	0 00
I	3.4 2	6	i	FORCEPS	6 30	0 07	0 00
- T			-	SRUSH	2 79	0 03	
*	3 4 2	6	1				0.00
*	3 4.2	6	1	FFCFS	0.00	0 00	0 00
*	3 4 2	6	1	PACKAGING MATERIAL	0 90	0.01	0 00
*	3 4 2	6	2	AQUARTUM TANK	48 00	0 00	16 00
*	3 4.2	6	2	SAND. WET	6 00	0.00	2 00
*	3 4 2	6	?	ANUATIC PLANTS	n 54	ი იი	0.18
*	3 4 2	6	2	DAPHNIA CONTAINER	0 60	0 00	0.70
٠	3 4.2	6	2	YEAST AND DROPPING A	0.17	0.00	0.04

				OTTLE			
•	3.4.2	6	2	PACKAGING MATERIAL	0 75	0.00	0 25
*	3 4 2	7	í	VIALS	54 00	0.60	0 00
		' 7	î	COTTON PLUGS	14.40	0.16	0.00
*	3.4.2	7	-		0.48	0.00	0.04
*	3.4.2	r	1	LIQUIO POLLEN, BOTTL E	0.40	0.00	0.07
*	3.4.2	7	1	ANAETHESIZING AGENT.	0.48	0 00	0.04
				BOTTL 5			
*	3 4 2	7	1	ANAFSTHESIZING CHAMB ER	18.00	0.70	0.00
*	3.4.2	7	1	FORCEPS	6 30	0.07	0 00
*	3 4.2	7	1	BRUSH	2 79	0.03	0 00
*	3.4 2	7	1	WATCH CLASS	9.00	0 10	0.00
*	3.4 2	7	ī	WIRF CAGE	1.50	0 00	1.50
*	3.4 2	7	ĩ	PACKAGING MATERIAL	3.90	0.00	0.25
*	3.4.2	7	î	FFCFS	0 00	0.00	0 00
*	3.4 2	,	2	HIRF MESH CAGE	1.50	0 00	1 50
		7	2	FFCFS	0 00	0 00	0 00
*	3 4 2	ź	ź	PACKACINC MATERIAL	0.60	0.00	0.05
*	3.4 2			CAGES (3)	270.00	4 50	0 00
*	3 4.3	- t	1		7.70	0.04	0.00
**	3 4 3	1	1	FOOD DISH			0.00
*	3 4 3	1	1.	WATER BOTTLE	45 00	0.75	
*	3 4 3	1	1	WIPFS WITH BACTERICI DF HAIR	8.40	0.14	0 00
*	3 4.3	1	1	URINE, FFCES, PAPER TO WEL, FFCAL COLLECTBAG	28.20	0.47	0.00
	2 / 2			PACKAGING MATERIAL	1 20	0.02	0.00
*	3.4 3	1	1		12140.00	36.00	0.00
*	3.4 3	2	1	CAGES (24)	306.60	0.84	6.07
*	3 4.3	2	1	WIPES+RACTERICINE+HA	200.00	U + O-T	0.01
		_	_	IP		0.00	
*	3 4.3	2	1	SYRINGES	8 11	0.00	0.16
*	3-4-3	2	Ţ	GAUZE PADS+ALCOHOL	1.25	0.00	0 02
*	3 4.3	2	1	WATER BOTTLE	2190.00	61.00	0.00
*	3.4.3	2	1	FOOD DISH	132.40	0.36	0.00
*	3 4 3	2	1	PACKAGING MATERIAL	14 60	0 04	0.00
*	3.4.3	2	1	URINF, FECES, PAPER, FE	1445.40	3.96	0.00
*	3 4.3	2.	2	CAGES	3295.00	9.00	0.00
*	3 4 3	ž	2	WATER BOTTLE	1095.00	0.00	0.00
*	3.4 3	ž	2	WIPES.BACTERICIDE.HA	153 30	0.42	0.00
*	3 4.3	2	2	PACKAGING	7 30	0.02	0.00
*	3 4.3	7	2	FECES-URINE . PAPER TO	730.00	2 00	0 00
				WELTECAL COLLECTRAG			
*	3 4.3	2	3	CAGES	2190.00	6.00	0 00
*	3 4.3	2	3	WATER BOTTLE	365.00	1.00	0.00
*	3 4.3	2	3	FOOD DISH	21.90	0 06	0.00
*	3 4 3	7	3	WIPES.BACTERICIDE.HA IR	51.10	0.14	0 00
*	3.4 3	2	3	FFCFS,URINE, PAPER TO WEL, FFCAL COLLECTBAG	230.90	0.66	0.00
	3 4.3	2	3	PACKAGING MATERIAL	3 65	0.01	0.00
*		2	3	SYRINGE	0 65	0.00	0.01
*	3 4 3				3285 00	9 00	0 00
*	3 4.3	2	4	CAGES			
*	3 4.3	2	4	FOOD DISH	722 70	1.98	0 00
#	3 4.3	2	4	WATER DISH	350.40	0.96	
*	3 4-3	2	4	WIPES, BACTERICIDE, HA	1095 00	3.00	0 00

				10			
	3.4.3	2	4	PACKAGING MATERIALS	7 30	0.92	0 00
<i>‡</i> ≎	3 4 3	7	4	FERAL GPELECTION BAC	408 9D	1.12	חס ס
••	, , ,	•	·	.FFCFS.PAPER TOWEL			
*	3 4 3	3	1	CAGES (4)	540 00	6 00	0.00
*	3-4 3	3	ī {	WIPES WITH BACTERCIP	12 60	0.14	0 00
,		-		F.HATP			
*	3 4.3	3	1	URINF, FECES, PAPER TO	36-90	0.41	0 00
				SFI FFF AL COLLECTRAG			
*	3.4 3	3	1	FOOD DISH	5 40	0.06	0 00
*	3.4 3	3	1	WATER ROTTLE	90 00	1.00	0 00
*	3 4.3	3	1	SYRINGF	0 94	0.00	0 08 0 01
*	3.4.3	3	1	GAUTE PADS ALCOHOL	0.14	0-00	0 00
xx.	3 4 3	3	1	PACKAGING MATERIAL	2 70	0.03	0.00
*	3 4 3	3	1	WATER ROTTLE	90 00 810 00	1.00 0.09	0.00
*	3 4 3	3	2	CAGE RACKS		0 00	0 00
*	3 4 3	3	?	FROM DISH	8.10 70 20	0 78	0.00
*	3 4 3	3	?	UPINE, COLLECTION BAC	48,60	0 51	0 00
*	3.4 3	3	2	FECES, COLLECTION BAC	0.62	0.00	0.31
*	3 4 3	3	2	SYPINGES	0 10	0.00	0.05
**	3 4 3	3	2	GAUZE PADS, ALCOHOL WIPES.BACTERICIDE.HA	16 20	0 18	o กา
*	3 4 7	3	2	IS Mine/*um iektoing*um	10 20	0 10	0 17 1
		_		PAPER TOWEL, ANIMAL H	5140 00	0.06	0 00
*	3.4.3	3	2	ATR	2140 00	0 00	
		•	2	WATER SOTTLE	135 00	1 50	0 00
*	3.4.3	3		PACKAGING MATERIAL	2.70	0 03	0 00
*	3 4 3	3 4	2	MACERATED TESTES BOT	0 02	0 00	0 02
*	3 4.3	4	1	TLE	V		
	3 4 3	4	1	FIXATIVE SOLUTION BO	0.04	0.00	0.04
*	3 4 3	**		TTLF	***	•	
x x	3 4 3	4	1	SYRINCE	0 01	0 00,	0 01
ě.	3 4 3	4	i	FD8C=PS	0 35	רס ס	0.00
*	3 4 3	4		PACKACING MATERIAL	C 05	0.01	0.00
*	3 4.3	Ś	i	FECAL COLLECTION BAC	18 14	0 00	6 14
**	, ,,,,		-	.WATER.FFCES.URINE			
*	3 4 3	5	ł	CONTAINERS	72 00	0 00	24 00
*	3 4 3	5	ī	らないつ	18 00	0 00	6 00
*	3 4 3	5	1	ADIJATIC PLANTS	1.62	9 00	0 54
*	3.4.3	5	1	PACKAGINO MATERIAL	0.06	0.00	0.07
*	3 4 3	6	ì	CACES (4)	316.00	0 41	0 00
*	3 4.3	6	1	WIPES WITH BACTERICI	7.84	0 14	ეტი
				DF,HAIR			
*	3 4 3	6	1	PAPER TOWEL.FFCES.UR	27 96	0 00	ο σίο
				INF, FECAL COLLECTRAC			
*	3 4.3	6	1	ፑባባ ን በ15H	3 36	0.06	0.00
*	3.4 3	6	1	WATER BOTTLE	56.00	1.00	0.00
*	3 4 3	6	1	PACKACING MATERIAL	1 12	0.02	0 00
*	3 4 3	7	1	CAGES (4)	540 00	6.00	0.00
*	3 4 3	7	1	FFCFS, PAPER TOWEL . FF	11 70	0 13	0.00
				CAL COLLECTION HAC	.		
*	3 4 3	7	1	#000 DIZH	5 40	0 06	იიი
*	3.4 7	7	1	WATER BOTTLE	90 00	1.00	0 00
tx	3.4 3	7	1	WIDES, BACTERICIDE, HA	18 90	0 21	0 00
				Ţħ			
*	3 4 3	7	1	LICHT BULR	0 04	0.00	0 03
ŧ	3 4 3	7	1	THEOMISTER PROSE	1 08	9 91	0.00

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*	3 4.3	7	1	ADHESTVE TAPE	0.36	0.00 0.02	0.00
*	3.4 3	7	1	PACKAGING MATERIAL	1-80		
*	3 4.3	8	1	PACKAGING MATERIAL	0.25	0 00	0.01

TABLE 0-7 SEARCH REPORT #5 - MATERIAL CONTAINS Fe and Cu

SFARCH NO 5

THE SEARCH HAS USED . AND . LOGIC ON THE EDLLOWING KEYWORDS

*OR'ITEM *4NO'ITEM			KFYWDRD VECTOR		
	1	FF	(FLEMENT)	12	
	2	ต	(FLEMFNT)	12	
***	****	****	<i>/</i> ******************************	*********	

THE FOLLOWING ITEMS WERE RETPIEVED

KEYWORD	GROUP	FOUI P /FXPT	WASTE	WASTE ITEM		QUANTITIE	\$
NO.	KFÝ	ND	SOURCE NO		12 MFN	50 MEN	100 MEN
	** .				*****	****	****
*	1.3.1	1	1	SPENT PARTS	4 00	8.00	16 00
*	1 3 2	i	Ž	MAGNITRON TUBE	2 10	4.20	7 00
*	1.5.1	ī	i	PRESSURE SEALS	0.64	2.60	5 20
*	1.5.2	i	ī	PRESSURE SEALS	0.30	1 20	2.50
*	1.5.2	i	î	PRESSURE SENSOR, CON	0 01	0.05	0 10
		_		TACT SET			
*	152	i	1	SOLENOTO VALVE	0 50	2.00	4.00
#	153	1	1	TEMPERATURE CONTROL	0 32	1.30	2.60
				UNIT PARTS	1		
#	153	ì	1	HUMIDITY CONTROL UNI	0.32	1 30	2 60
				T PARTS			
*	153	1	1	HUMIDITY CONTROL VAL	1.50	6 00	12 00
				٧F			
*	154	Í	1	FAN MOTOP	1.00	3.00	5 00
*	154	1	ì	HEATER CONTROL	2 00	6 00	10.00
*	1.5 5	?	1	HEATER COLL AND CONT	10.00	20.00	35 00
				POL			
*	1 5.6	1	1	FAN	8.50	17.00	25 50
*	1.5.6	1	1	DIVERTER VALVE	1.00	3.00	6.00
*	156	1	i	CONDENSOR/SEPARATOR	40 00	120.00	200.00
¢	156	1	1	SOLENOTO VALVE	2 00	9.00	16 00
*	1.5 6	2	1	HEATER CONTROL	2 00	6.00	10 00
*	1.5 6	2	1	MAIN CONTROL	Z±00	6 00	10.00
*	1.5 6	3	1	STARTUP HEATER ASSEM	2 00	6 00	10.00
				RIY			
*	156	2	1	FAN	1 00	3.00	5.00
#	1.5 7	1	1	BYPASS VALVE CONTROL	2 00	8.00	16 00
*	1.5.7	i	t	AAbazz AvfAe	5 00	20.00	40 00
*	1 5.8	1	1	HEATER CONTROL	2-00	8.00	16 00
*	158	1	1	CONDUCTIVITY SENSOR	1 00	4 00	8.00
*	1 5 8	1	1	SOLIDS STASOR	1.28	5.00	10 00
tt.	159	ï	1	SOLFNOTO VALVE	5.00	20.00	40 00
*	158	?	1	PRESSURE SEALS	1.00	3.20	4 40
*	158	2	1	SOLENDID VALVE	5 00	15.00	72.57
*	158	2	ī	HEATER SENSOR/CONTRO	0.70	2 10	3.20
							* * *

						10 YR. TOTAL		E UNIT WEIGHT
*	2.1 i	1	1	ľ	FAILFO POWER SUPPLY	30.60	0.00	25.00
*	2 1.1	ι	1		FAILED COMPUTER	726.80	0.00	35.00
*	2 1.1 1	ì	ī		FAILED SENSOR MOUNTI	115.60	0.00	40 00
*	2-1 1	1	1		FAILED PLATFORM FLEC	I4.90	0 00	10.00
*	2-1 1	i	ı		FAILED STAR TRACKER MECHANICAL ASSEMBLY	48 00	0.00	25.00
*	2 1 1	1	ì		FAILFO STAR TRACKER ELECTRONICS	13.40	0.00	14.00
*	2 1 1	1	1		FAILED HORIZON SCANN ER MECHANICAL ASSY	48.00	0.00	25.00
*	2.1.1	1	ì		FAILED HORIZON SCANN ER ELECTRONICS	30.60	0.00	25.00
#	2 1.1	2	1		FAILED CMC GIMBAL MO	93 50	0.00	50.00
*	7.1.1	2	1		FAILFD (MG GIMPAL AN GLF PICK-OFF	1.80	0.00	1 00
*	2 1.1	2	ĭ	~	FAILFO (MG SERVO ELE CTRONICS	43.40	0.00	15.00
*	2 1.1	2	1		FAILFO CMG GIMBAL AN GLE SERVO MOTOR	46 80	0.00	25 00
*	2 1.1	2	1		FAILED CMG POWER SUP	18.50	0.00	15 00
*	2 1 1	2	2		FAILFD FILL VALVE & PRESSURF RELIFF	7.90	0.00	3 00
*	2 1 1	2	2		FAILED NZ START VALV	7.00	0.00	2.00
*	2 1.1	2	2		FAILED PRESSURE REGULATOR	26 30	0.00	5 00
**	2 1.1	2	2		FATLED CHECK VALVE	0.26	0.00	1 00
*	2 1 1	ž	Ž		FAILED PROPELLANT FI	0.52	0.00	2 00
*	2.1 1	2	2		FAILED FUEL START VA	7.00	0 00	2.00
*	2-1-1	2	2		FAILED FLOW CONTROL VALVE	378.00	0 00	3.00
*	2 1.1	2	3		FAILFD FILL VALVE	7.90	0 00	3 00 \
*	211	2	3		VALVE, PPFSSURANT STA	7.00	0 00	2 00
*	2-1-1	2	3		FAILED PRESSURE REGULATOR	57.60	0.00	5 00
*	2.1 1	2	3		FAILTO PELIFF VALVE	15.80	0.00	3.00
*	2.1.1	7	3		FAILED CHFCK VALVE	0 52	0.00	1 00
*	2.1.1	2	3		FAILED PURGE AND FIL L VALVE	1 04	0 00	5 00
*	2 1.1	2	3		FAILED ISOLATION VAL VE	12 48	0.00	2-00
*	2 1 1	7	3		FAILED BIPROPELLANT VALVE	504.00	0 00	4.00
*	2 2.1	1	l		FAILFD STLAR ARRAYS	24587.00	0.00	0 12
*	2.2 1	1	1		FAILED REGULATOR	55.00	0 00	15 00

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TABLE 0-7 (Cont'd)

					•		
*	2.2 1	į.	1	FAILED INVERTED FAILED VOLTAGE PEFER	131.0y	0 70 0-00	25.00 2.50
*	2.7.1	1	1	ENCE	V -11	.,	
*	2 2 1	1	ŧ	FAILFD SYNCHRON17FR	0 90	0 00	2 50
*	?. 2 1	1	1	ENTLED CIPCUIT BREAK	0 60	0-00	1 00
*	2.7 1	1	1	FAILED POWER CONTACT	0 70	0.00	1.00
*	721	t	1	FAILFO MONITOR METER	1009	0.00	0.50
*	2 ,2 1	1	1	(DC) FAILED MONITOR METER	0 09	0 00	0 50
4	2 2 1	1	1	FAILED MONITUR METER	0.18	0.00	0 25
*	2 2 1	1	1	SWITCHES FAILED PEMOTE CONTRO	0.35	0.00	0 75
				L SWITCHES	,		
*	2 2 1	7	ī	FAILED PCS	24360 00	2 00	4200 00
*	2 2-1	2	1	EATLED PHMP/MOTOR	75 00	0 00	25 00
**	2.2.1	7	1	CEIMINATUR EVITED ESECTIENCY DIS	1 18 90	0 00	2 ^^
*	2 2 l	?	1	FAILFO MACNETIC PREA PPLIFIER	0 37	0 00	2 00
*	2 2 1	2	1	FAILED MAGNETIC AMPL	2 90	0.00	3 00
*	221	2	1	FAILFD PARASITIC LOA D BANK	1 58	0.00	60 00
**	2 2 1	2	1	PATLED VOLTACE SENST	1 50	ი იი	2 00
**	2.2 1	2	1	FAILED VOLTAGE REFER	1 50	0 00	2 00
*	2 2 1	2	i	FAILED TRANSISTER AM	1 10	0 00	1 50 -
*	2 2 1	2	1	FAILED MAGNETIC AMPL	1.50	0.00	3 00
*	2.2.1	2	1	IFIFR FAILEN FULL WAVE REC TIFIER	1.60	0.00	1.50
*	2 2 1	2	1	FAILED SATURATING CU	3 16	0 00	40 00
*	2 2 1	7	1	FAILED CIPCUIT BREAK	0 35	0.00	1 00
*	2.2.1	7	1	FAILFD POWER CONTACT OP	0.35	0 00	1 00
*	2 7 1	S	1	FAILED MONITOR METER	0 04	0 00	0 50
*	2 2.1	2	i	FAILED MONITOR METER	0 04	0.00	0.50
*	2 2 1	?	1	FAILED PEMOTE CONTRO	0.17	0.00	0 25
*	2 2 2	1	1	EVIFED CIRCUIT BREAK	2 10	0.00	1.00
*	2 2 2	i	1	FAILED INVERTER RECU	358 00	0.00	40 00
*	7 7 2	1	1	LATOR FAILED SOLAR ARRAY P	16872.00	0.00	80 00
*	, , 2	1	1	ATTERY CHARCER REC FAILED PLANAUTON BA	6749 00	0 00	80 00
				TTERY CHARCED REC.			

*	2 2 2 2 2 • 2 • 2	1	1	FAILED FUFL CELL FAILED RECTIFIER FIL	0 00 57 60	0.00	0 00 20.00
	2 2 2	1	1	TFR FATLED TRANSFORMER	2.75	0.00	25 00
*	2 2.2	i	i	FAILED POWER CONTACT	2-45	0-00	1.00
*	2.2 2	1	1	FAILFD MONITOR METER	0.04	0.00	0 50
*	2 2.2	1	1	FAILED MONITOR MFTER	0.04	0 00	0.50
*	2 2 2	1	i	FAILFD MONITOR METER SWITCHES	0 04	0 00	0.25
*	2 ? 2	1	1	FAILED REMOTE CONTRO	0.11	0.00	0.25
*	2-2-3	1	t	FAILED CCT BKR-E GRO UND LEAKAGE DETECTOR	76.80	0.00	20 00
*	2 2.3	1	1	FAILED CCT BERYLOAD CONTROL UNIT	220.00	0.00	20.00
*	2 2.3	i	1	FAILED CURRENT SENSI	30.30	0.00	1 50
*	2.2.3	1	1	FATLED INDIVIDUAL LI NE CCT. BREAKER	3.70	0.00	0.50
*	2 2 3	ı	1	FAILED MONITOR METER	0.04	0 00	0.50
*	2 2 3	1	t	FAILFD MONITOR METER	0.04	0.00	0.25
*	2.2.3	1	1	FAILED REMOTE CONTRO L SWITCHES	0.47	0.00	0 75
*	2 2 3	ı	1	FAILED CCT.BKR & CRO	76.80	0.00	20.00
*	2 7.3	ı	ı	FAILFO CCT.BKR.& LOA O CONTROL UNIT	84.80	0.00	20.00
*	2.2 3	ı	1	FAILED CURRENT SENSI	11.50	0 00	12.00
*	7 2.3	1	1	FATLED INDIVIDUAL LI NE CCT BREAKER	1-40	0 00	0.50
*	2 2.3	1	1	FAILED MONITOR METER	0.04	0.00	0.50
*	7.2.3	1	1	FAILED MONITOR METER SWITCHES	n 04	0.00	0.25
*	2.2 3	1	1	FAILED PEMOTE CONTRO L SHITCHES	0.18	0.00	0.25
*	2 3.1	ĭ	1	ANTENNAS AND SOLAR C ELLS	0.00	0.00	0 00
*	2-4-1	1	1	FAILED KU BAND REFLE CTOR, FEED & POSITIONER	1408.00	0.00	440.00
*	2 4.1	1	1	FAILFD KU BAND MIXER /MULTIPLEXER	8.80	0 00	20 00
*	2.4.1	I	1	FAILED KU BAND FERRI TE SWITCHERSBOUADRUP	1.40	0.00	6.00
*	2 4 1	1	1	FAILED KU BAND FM TP Ansmitter	60 00	0 00	25.00
*	2 4.1	1	I	FAILED KU BAND P* TR Ansmitter	2.70	0 00	10.00
**	2 4 1	2	1	FAILED S-BAND DIPLEX FR/SWITCHES	0.84	0.00	6 00
*	7 4.1	2	1	FAILED S-BAND FERRIT	0.07	0.00	5 50

TABLE 0-7 (Cont'd)

				F SHITCHES			
*	2.4.1	2	1	FAILED S-MAND PM TRA	47 00	0 00	14-00
*	7-4-1	2	1	FAILED S-BAND FM TRA	42 00	0.00	12 00
*	2 4 1	2	1	FAILED TRANSPONDER	12 00	0.00	10.00
*	2 4 1	2	1 1	FAILED TRANSMITTER M	1.50	0.00	2.50
*	2.4.2	1	t	UHF SOLID STATE SWIT	0.84	0.00	12 00
*	7 4 2	1	1	FAILED WHE EM TRANS	0.20	0.00	1 50
*	2 4-2	ι	1	FAILED UHE TRANSMITT FR MODEM	0 56	0.00	2 00
*	2.4.2	1	1	FAILED UHE EM VIDEO RECEIVER	3 50	0.00	3 00
*	2-4-?	1	ī	FAILED UHF PM DATA P FCEIVER	3 40	0.00	3 00
*	2.4.2	I	t	FAILFO VIDFO RECFIVE R MODEM	8 60	0.00	2 50
*	7 4 2	1	1	FAILED DATA RECEIVER PODEM	5 70	0 00	2 50
*	2.4 2	2	1	FAILED VHE VOICE RAN GING T/P	84 00	0 00	15.00
*	2 4 2	2	1	TAILED RANGING MODEM	40 00	0 00	9 00
*	2 4 2	2	1	EAILED VOICE MODEM	3 80	0 00	5.00 15.00
*	2 4 2	?	1	FAILED VHE DATA T/R	84 00 1 70	0.00	4.00
*	2 4 2	2	1	FAILED DATA MODEM FAILED VHF FM XMTR/R	1 64	0.00	2.00
*	2 4 2	3	1	CVR FAILED MODEM	6.56	0 00	8.00
*	2 4 2	3	1	FAILED TV CONTROL MO	17 10	0.00	3 00
*	2 4 3	1	1	nem	5.00	0 00	5.00
*	2 4 3	l	1	FAILED ANALOG SYNC/T	5.00	0 00	5 00
*	2 4 3	1	1	MODEM			•
*	2 5 1 2 5 1	1 1	1	MAGNETIC DISC TARE TRANSPORTS	5 00 101 60	0.00 0.00	5.00 40 00
					FXPT. TOTAL		BATCH S17F
*	3 6.2	1	1	FXPFRIMENTAL FACILIT	1100 00	0.00	1100-00
*	3 6 2	1	t	ACCESSORY TOOLING	1320 00	120.00	120.00

TABLE 0-8 SEARCH REPORT #6 - MATERIAL CONTAINS Fe or Cu

SFARCH NO. 6

THE SFARCH HAS USED * OR * LOGIC ON THE FOLLOWING KEYWORDS

*OR*ITEM	'AND'ITEM	KEYWORD	VECTOR
	,		
1	FE	(ELEMENT)	12
7	cu	(ELEMENT)	12
*****	*******	*************************	*****

THE FOLL	ONING IT	EMS HERF RETR	IFVFD		;		
KEYHORD NO.	GROUP KFY	EQUIP /EXPT	WASTE SOURCE NO.	WASTE ITEM	12 MEN	QUANTITIES 50 MFN	100 MFN
1	1 2 3	1	1	MAGNETIC TAPES CASSE	8.00	8.00	8.00
1	1.3 1	1	1	SPENT PARTS	4.00	8.00	16.00
?	1 3 1	1	1	SPENT PARTS	4.00	8.00	16.00
1	1.3.2	1	2	MAGNITRON TUBE	2.10	4.20	7.00
1 2 2 2 1	132	1	2	MAGNITRON TUBE	2.10	4.20	7.00
2	1 4 5	1	1	FAILED BLOWER MOTOR	21 00	87.50	175-00
2	1 4.5	7	1	FAILED SLOWER	2.10	5.20	18-20
1	151	ī	1	PRESSURE SEALS	0.64	2-60	5.20
?	1.5 1	i	i	PRESSURE SEALS	0.64	2.60	5-20
1	1.5 1	1	1	PRESSURE SENSING SEL	1.50	6.00	12.00
1 '	1.5.2	1	1	REGULATOR DIAPHRAM	0.02	0.10	0.20
1	1 5-2	1	1	PPESSURE SEALS	0.30	1.20	2.50
2	152	1	1	PRESSURE SEALS	0.30	1.20	2.50
I	1.5 2	1	1	PRESSURE SENSOR, CON TACT SET	0.01	0.05	0.10
2	l 5 2	1	1	PRESSURE SENSOR, CON	0.01	0.05	0.10
1	1.5.2	1	1	SOLFNOID VALVE	0.50	2.00	4.00
2	1.5 2	1	1	SOLENDID VALVE	0.50	2.00	4.00
1	1 5.3	1	1	TEMPERATURE CONTROL UNIT PARTS	0.32	1.30	2.60
2	1.5 3	1	1	TEMPERATURE CONTROL UNIT PARTS	0.32	1.30	2.60
1	1.5.3	1	1	HUMIDITY CONTROL UNI	0.32	1.30	2.60
2	1.5.3	1	1	HUMIDITY CONTROL UNI	0.32	1.30	2.60
1	1 5.3	1	1	HUMIDITY CONTROL VAL	1.50	6.00	12.00
2	1.5 3	1	1	HUMIDITY CONTROL VAL	1.50	6.00	12.00
1	1.5.4	1	1	FAN MOTOR	1 00	3 00	5.00
Ž	1.5 4	ī	1	FAN MOTER	1.00	3.00	5 00

TABLE 0-8 (Cont'd)

ı	1.5 4	į	1	PEGULATOR	0 09	0 40	0 81
ì	154	ì	ī	HEATER CONTROL	2.00	6 00	10 00
				HEATER CONTROL	2.00	6 00	10 00
2	154	1	1		5 00	20 00	35 00
2	1.5 4	1	1	4 WAY VALVE	-		
t	155	I	1	FILTER SCREEN	360 00	1440 00	2980 00
1	155	?	1	HEATER COIL AND CONT ROL	10.00	20 00	35 00
2	155	2	1	HEATER COIL AND CONT	10 00	20 00	35 00
1	155	ż	1	FILTER SCREWS	360 00	1440 00	2880-00
_	• • •	í	i	FAN	8.50	17 00	25.57
1			_	**	8.50	17 00	25 50
2	156	t	ī	FAN		-	
ι	156	1	1	ABSORPTION BED	6 00	18.09	24-09
1	l.5 6	1	1	DIVERTER VALVE	1 00	3.00	6.00
2	156	1	1	DIVERTER VALVE	1.00	3 00	6.00
ī	î 5 6	ì	ī	CONDENSOR/SEPARATOR	40.00	120 00	200.00
ž	1.5 6	ī	î	CONDENSOR/SEPARATOR	40.00	120 00	200 00
				TIMER	2 00	7 00	12-00
į	156	1	1		2.00	a.00	16 00
I	156	1	1	SOLFNOID VALVE			
2	156	1	l	SOLENGIO VALVE	2 00	ន ០០	16.00
1	156	1	ţ	COMPRESSOR	2 00	3 OO	16 00
1	156	1	1	WATER REGULATOR	0 10	0 40	0.80
i	156	7	Ï	HEATER CONTROL	2 00	6.00	10 00
	-	?	î	HEATER CONTROL	2 00	6 00	10 00
?		2		MAIN CONTROL	2 00	6 00	10 00
1	156		1				10.00
7	156	2	1	MAIN CONTROL		6 00	
1	t 5 6	2	1	ELFCTROLYTE HODULFS	45 00	150 07	300 00
1	156	2	1	HFAT FXCHANGER	7 00	21 00	42 QO
1	156	2	1	COMPRESSOR	8 00	16 00	32.00
ī	156	2	1	4 WAY VALVES	5 00	20 00	40.00
i	156	2	i	CO2 PEGULATOR	0.10	0.40	0.80
	1 5 6	3	i	STARTUP HEATER ASSEM	2 00	6.00	10 00
1	• • •			B1.Y			, - , -
2	156	3	t	STARTUP HEATER ASSEM BLY	2,00	6 00	10 00
1	156	3	ı	FLFCTROLYTIC MODULE	5 00	20.00	40 00
ì	1 5 6	ž	i	FAN	1.00	3 00	5 00
2	1 5.6	á	î	FAN	1 00	3 00	5.00
				BYPASS VALVE CONTROL	2.00	8 00	16 00
ī	1 5.7	1	1				
2	157	i	i	BYPASS VALVE CONTROL	2.00	8 00	16 00
1	1 5 7	1	1	RYPASS VALVE	5 00	20.00	40.00
2	15 7	1	1	RYPASS VALVE	5.00	20 00	40.00
1	158	1	ĭ	HEATER CONTROL	2 00	8.00	16 90
2	1 5 8	ī	1	HEATER CONTROL	2 00	8.00	16.00
ī	1 5.8	ī	ī	CONDUCTIVITY SENSOR	1 00	4 00	8 00 \
â	1.5 8	ĩ	ì	CONDUCTIVITY SENSOR	1.00	4 00	8.00
			-	SOLIDS SENSOR	1 28	5 00	10.00
1	1 5 8	1	1				
2	158	1	1 1	SOLIDS SENSOR '	1.28	5 00	10 00
1	158	ì	1	SOLENGIO VALVE	5.00	20 00	40.00
2	1.5 8	I	1	SOLFNOID VALVE	5.00	20 00	40 00
1	1.5 8	?	1	PRESSURE SEALS	1.00	3.20	4 40
è	158	2	ī	PRESSURE SEALS	1.00	3 20	4 40
ì	1 5 8	2	i	SCIENCIA VALVE	5.00	15.00	22.50
			ì	SOLENOID VALVE	5.00	15 00	27.50
?		2					
1	158	7	1	HEATER SENSOP/CONTRO L	0 70	2 10	<u>3</u> 20
2	1 5.8	2	1	HEATER SENSOR/CONTOOL	0 70	2 10	3.20

					10 YR TOTAL		UNIT WEICHT
1	2 1.1	1	I,	PAILED POWER SUPPLY PACKAGE	30.60	0 00	25.00
2	2-1-1	1	1	FAILED POWER SUPPLY	30.60	0.00	25.00
1	2.1.1	1	1	FAILED COMPUTER	226.80	0 00	35.00
2	2.1.1	1	1	FAILED COMPUTER	226.80	0 00	35.00
ī	2 1 1	ĩ	ī	FAILED SENSOR MOUNTI	115.60	0.00	40.00
2	2 1-1	1	1	FAILED SENSOR MOUNTI NG BLOCK	115 60	0.00	40.00
1	7-1 I	i	1	FAILED PLATFORM ELFC TRONICS	14 90	0 00	10 00
?	2.1.1	1	1	FAILFD PLATFORM ELEC TRONICS	14 90	0 00	10.00
1	2 1 I	1	1	FAILED STAR TRACKER MECHANICAL ASSEMBLY	48.00	0 00	25.00
2	2 1-1	1	1	FAILED STAR TRACKER MECHANICAL ASSEMBLY	48.00	0 00	25.00
t	2 1.1	1	1	FAILED STAR TRACKER ELECTRONICS	13 40	0.00	14.00
2	2.1 1	1	1	FAILED STAR TRACKER ELECTRONICS	13.40	0 00	14-00
ì	2 1 1	1	1	FAILED HORIZON SCANN ER MECHANICAL ASSY	48 00	0.00	25 00
2	2.1 1	1	1	FAILED HORIZON SCANN ER MECHANICAL ASSY	48.00	0 00	25.00
1	2.1.1	1	1 ,	FAILED HORIZON SCANN ER FLECTRONICS	30 60	0.00	25.00
2	2.1.1	1	1	FAILED HORIZON SCANN FR ELECTRONICS	30.60	0 00	25.00
1	2 1.1	2	1	FAILED CMG GYRO	16.40	0 00	6.00
î	2 1.1	2	1	FAILED CMG GIMBAL RE Aring	8 20	0.00	6.00
1	2.1.1	2	1	FAILED CMG GIMBAL MO TOR	93.50	0.00	50.00
7	7.1.1	?	1	FAILED CMG GIMBAL MO TOR	93 50	0 00	50.00
1	2 1 1	2	1	FAILFD CMG GIMBAL AN CLF PICK-OFF	1.80	0 00	1.00
2	2 1.1	2	1	FAILED CMG GIMBAL AN GLE PICK-OFF	1 80	0.00	1.00
1	2 1.1	2	1	FAILED CMG SERVO ELF	43.40	0 00	15.00
2	2-1-1	?	1	FAILED CMG SEPVO FLF CTRONICS	43 40	0.00	15.00
1	2 1.1	?	1	FAILED CMG GIMBAL AN GLE SERVO MOTOP	46 80	0.00	25.00
2	2-1-1	2	1	FAILFD CMG CIMBAL AN GLF SERVO MOTOR	46.80	0.00	25.00
1	2 1 1	2	1	FAILFD CMG POWER SUP PLY	18.50	0.00	15.00
2	2.1.1	2	1	PAILED CMG POWER SUP PLY	18.50	0 00	15 00

			\mathbf{T}	ABLE 0-8 (Cont'd)			
ı	2.1.1	2	2	FAILED FILL VALVE F	7 90	0 00	3.02
2	7 1 1	2	2	PRESSURF RELIFF FAILFD FILL VALVE &	7.90	0 00	3 00
ı	2.1 1	2	?	PPFSSURF RELIFF FAILFD N2 START VALV	7.00	0.00	2.00
2	2.1.1	2	2	E FAIL ^e d no start valv	7.00	0 00	2 00
1	2.1 1	2	2	FAILED PRESSURE REGU	36.30	0.00	5 00
2	2.1.1	2	2	LATAR FAILED PRESSURE REGULATOR	26.30	0 00	5 00
1	2.1 1	2	7	FAILED CHECK VALVE	0 26	0.00	1.00
2	2 1 1	?	2	FAILED CHECK VALVE	9 26	0.00	i no
	2 1.1	2	2	FAILED PROPELLANT FI	0.52	0 00	2 00
l	2 1 • 1	2	•	ELED VALVE	0.72	5 50	
2	2.1.1	2	?	FAILED PROPELLANT FI	0.52	0.00	2.00
1	2.1 1	7	2		7.00	0 00	2 00
7	2.1.1	5	2	FAILED FUEL START VA	7.00	0 00	2 00
ı	2.1 1	2	7	FAILED FLOW CONTROL VALVE	378 00	0 00	3 00
7	2 1 1	2	?	FAILED FLOW CONTROL VALVE	378 00	0 00	3 00
1	2 1 1	2	2	FAILED NOZZLFS	200 00	0 00	5 00
1	2-1-1	2	3	FAILFD FILL VALVE	7.90	0 00	3 00
2	211	2	3	FAILED FILL VALVE	7.90	0 00	3 00
1	2 1 1	7	3	VALVE.PRESSURANT STA RT	7.00	0.00	2.00
2	2.1 1	2	3	VALVE, PRESSURANT STA	7.00	0 00	2.00
1	2 1-1	2	3 "	FAILED PRESSURE RECULATOR	52.60	0 00	5-00
?	2 1 1	2	3	FAILFD PRESSURF RECULATOR	52 60	0 00	5 00
1	2.1 1	2	3	FAILFD RFLIFF VAIVE	15.80	0.00	3 00
2	2.1 1	2	3	FAILFD RELIFF VALVE	15.80	0.00	3.00
1	2 1.1	2	3	FAILED CHECK VALVE	0 52	0.00	1 00
?	2.1 1	2	3	FAILFD CHFCK VALVE	0 52	0 00	1 00
ì	2 1 1	Ž	3	FAILFD PURGE AND FIL L VALVE	1.04	0 00	2 00
2	2 1-1	?	3	FAILED PURCE AND FILL VALVE	1.04	0.00	2.00
ı	2.1 1 ,	2	3	FAILED ISOLATION VAL	12.48	0.00	2 00
2	2 1 1	2	3	FAILED ISOLATION VAL	12.48	0 00	2.00
2	2.1.1	2	3	FAILFD BIPROPELLANT VALVE	504 00	0.00	4.00
2	2 1 1	7	3	FAILFD BIPROPFLLANT VALVF	504-00	0.00	4.00
1	2-1-1	2	3	FAILED THRUSTER NO77	279.70	0 00	7 00
1	2.2 1	1	1	FAILED SOLAR ARRAYS	24587.00	0 0 0	0 12
?	? 2.1	1	l.	FAILED SPLAR ARRAYS	24587 00	0 00	0 12

1	2.2.1	ı	1	FAILED RECULATOR	55.00	0.00	15.00
?	2 2.1	1	1	FAILED PEGULATOR	55.00	0.00	15 00
1	7.2 1	1	1	FAILED INVERTER	131 00	0.00	25 00
ż	2.2.1	ī	1	FALLED INVERTER	131 00	0.00	25.00
	2 2 1	i	î	FAILED VOLTAGE REFER	0.90	0 00	2 50
1	2 2 1	L.	1		0.00	0 00	- , -
			_	ENCE	0.00	0 00	2 50
7	2 7.1	1	1	FAILED VOLTAGE REFER	0.90	0.00	2 50
				ENCF			
1	2.7.1	1	1	FAILED SYNCHRONIZER	0.90	0 00	2 50
•		•	-	CENCK			
_			1	FAILED SYNCHRONIZER	0.90	0 00	2.50
2	2 2.1	1	1		0.70	0 00	~~~
				CLOCK			
1	221	1	1	FAILED CIRCUIT BREAK	0.60	0.00	1.00
				ER			
2	2 2.1	1	1	FAILED CIRCUIT BREAK	0 60	0.00	1.00
2	2 2 . 1	ı	*		3 70		
			_	FR			1 00
1	2 2.1	1	1	FAILFO POWER CONTACT	0.70	0.00	1.00
				OR			
2	2.2.1	1	1	FAILED POWER CONTACT	0.70	0 00	1.00
4	2.44.1	•	•	DR .		•	
			_		0.00	0.00	0.50
1	2.2.1	1	1	FAILED MONITOR HETER	0.09	0.00	0.50
				(DC)			
2	2.2.1	1	1	FAILED MONITOR METER	0.09	0.00	0.50
•	400.	-	•	(DC)			
	2 2 1	•	1	FAILED MONITOR METER	0.09	0.00	0.50
1	2 2.1	1	1		0407	0.00	4.50
				(AC)	_		
2	2.2.1	1	1	FAILED MONITOR METER	0.09	0.00	0.50
				(AC)			
1	2 2.1	1	1	FAILED MONITOR METER	0.18	0 00	0.25
t.	C 2+1	4		SWITCHES		• • •	****
		_	_				0.25
7	2 2.1	1	1	FAILED MONITOR METER	0.18	0.001	0.25
				SWITCHES			
1	2.2.1	1	1	FAILED PENOTE CONTRO	0.35	0.00	0.25
•		•	-	L SWITCHES			
_		_		FAILED REMOTE CONTRO	0 35	0 00	0.25
2	7.2.1	1	1		0 55	Ų VV	0.2
				L SWITCHES			
1	2.2.1	7	1	FATLED PCS	24360.00	0 00	4200.00
2	2.2.1	?	Ī	FAILFD PCS	24360 00	0.00	4200.00
ì	7 2.1	2	ì	FAILED PUMP/MOTOR	75.70	0.00	25 00
_			i	FAILED PUMP/MOTOR	75.00	0 00	25 00
2	7.2 1	2	-			•	
1	2 2.1	?	1	FAILED FREQUENCY DIS	18.90	0.00	2.00
				CRIMINATOR			
2	2 2.1	2	1	FAILED FREQUENCY DIS	18 90	0.00	2.00
-		_	-	CRIMINATOR			
_		_		FAILED MAGNETIC PREA	0.37	0 00	2 00
1	2 2.1	2	1		0-51	0 017	2 00
				MPLIFTFR			
2	2 2 1	2	1	FAILFO MAGNETIC PREA	0.37	0.00	2.00
				MPLIFIER			
1	2.2 1	2	1	FAILED MAGNETIC AMPL	2 90	0.00	3 00
•	C		•	IFIER	2		
_		_	_				2 00
2	2 7.1	2	1	FAILED MAGNETIC AMPL	2 80	0.00	3.00
				IFIFR			
2	2.2.1	2	1	FAILED SILICON CONTP	1-18	0.00	0 25
_		_		OLLED RECTIFIERS			
1	2.2.1	2	1	FAILED PARASITIC LOA	1.58	0.00	60.00
1	C+ L + 1	4	1		1.00	0.00	00400
			_	D BANK			
2	7.2 1	2	1	FAILED PARASITIC LOA	1 5A	0 00	60 00

				D BANK			
1	2 2 1	2	1	FAILED VOLTAGE SENSI	1 50	0.00	2.00
2	2.2.1	2	1	FAILED VOLTAGE SENST	1 50	0.00	2.00
ı	2.2.1	2	1 y	NC CIPCUIT FAILED VOLTAGE REFER	1 50	0.00	2 00
2	2 2-1	2	1	FAILED VOLTAGE REFER	t 50	0 00	2.00
1	2.2.1	2	1	FNCF FAILED TRANSISTEP AM	1.10	0 00	1.50
2	2 2 1	7	ı	PLIFEP FAILED TPANSISTER AM	1.10	0.00	1 50
1	2 2.1	7	1	PLIFER FAILED HACNETIC AMPL	1.50	0.00	3.00
?	2 2.1	7	ì	IFIER FAILED MAGNETIC AMPL	1.50	0 00	3 00
2	2 2 1	2	1	IFIER FAILED FEED RACK NET	0 13	0.00	0.25
1	2 2-1	2	1	WORK FAILED FULL WAVE REC	1 60	0 00	1 50
2	2.7 1	2	1	TIFIER FAILED FULL HAVE REC	1.60	0.00	1.50
1	2.2 1	?	1	TIFIER FAILER SATURATING CU	3 16	0.00	40 00
2	2.2 1	7	1	PPENT POTENTIAL TRAN FAILED SATURATING CU	3 16	0 00	40.00
1	2.2 1	2	1	RPENT POTENTIAL TRAN FAILED CIRCUIT BREAK	0 35	0.00	1 00
2	2 2 1	2	i	EPS FAILED CIRCUIT PREAK	0.35	0 00	1.00
1	2-2 1	2	1	FRS FAILED PONFR CONTACT	0.35	0.00	1.00
2	2 2 1	2	1	OR , FAILED POWER CONTACT	0.35	0.00	1.00
ţ	2.2 1	7	1	OR FAILED MONITOR MFTEP (OC)	0=04	0 00	0.50
2	2.7 1:	7	1	FAILED MONITOR METER	9 04	n 00	0 50
1	2 2 1	?	1	FAILED MONITOR METER	0.04	0 00	0.50
2	2.2 1	2	1	FAILED MONITUR METER	0 04	0.00	0.50
1	7.7 1	2	1	FAILED REMOTE CONTRO L SWITCHES	0 17	0.00	0.25
2	2 2.1	?	1	FAILED REMOTE CONTRO L SWITCHES	0.17	0.00	0 25
1	2 2.2	1	ł	FAILED CIRCUIT BREAK	2.10	0 00	1 00
2	7.2.2	1	1	FAILED CIRCUIT BREAK	2 10	0 00	1 00
ı	2 2 2	ι	ι	FAILED INVERTER RECU LATOR	358.00	0 00	40.00
2	2 7.7	1	1	FAILED INVERTER RECU	358.00	0.00	40.00
1	2.7.2	1	1	FAILED SOLAR ARRAY P ATTERY CHARGER REG.	16872.00	0.00	80.00

FAIRCHILD MILLE

TABLE 0-8 (Cont'd)

				•			
2	2.2.2	1	ĭ	FAILED SOLAR ARRAY B	16872.00	0.00	80 00
1	2.2.2	1	1	FAILED RI/BRAYTON BA	6749.00	0.00	80 00
2	2.2 2	1	1	TTERY CHARGER REG. FAILED PI/BRAYTON BA	6749.00	0.00	80+00
1	2.2 2	1	1	TTERY CHARGER REG. FAILED FUFL CELL	0 00	0.00	0.00
2	2.2.7	î	i	FAILTO FUEL CELL	1 0.00	0.00	0.00
ī	2.7.2	ī	ĩ	FAILED RECTIFIER FIL	52.60	0 00	20 00
2	2 2.2	1	1	TER FAILED RECTIFIER FIL TER	52.60	0.00	20 00
1	2.2 2	ì	1	FAILED TRANSFORMER	2.75	0 00	25 00
2	7.2.2	1	1	FAILED TRANSFORMER	2 75	0.00	25 00
1	2+2 2	1	1	FAILFO POWER CONTACT	2 45	0 00	1.00
2	2.2.2	ĭ	1	FAILED POWER CONTACT	2.45	0.00	1.00
1	2.2.2	1	1	FAILED MONITOR METER	0.04	0.00	0.50
2	2.7.2	1	1	FAILED MONITOR METER	0 04	0.00	0.50
1	2.2.2	1	1	FAILED MONITOR METER	0 04	0.00	0.50
2	2.2.2	1	1	FAILED MONITOR METER AC	0-04	0 00	0.50
1	2 2.2	1	1	FAILED MONITOR METER	0.04	0.00	0.75
2	2.2.2	1	1	SWITCHES FAILED MONITOR METER SWITCHES	0.04	0.00	0.25
1	2 2 2	I	1	FAILED PEMOTE CONTRO	0.11	0.00	0.25
2	2 2.2	1	ı	FATLED REMOTE CONTRO	0 11	0.00	0 25
1	7.2 3	1	1	L SWITCHES FAILED CCT BKR.& CRO	76 80	0.00	20 00
2	2.2.3	1	1	UND LEAKAGE DETECTOR FAILED CCT.BKR & GRO	76 80	0.00	20 00
1	2.2.3	1	1	UND LEAKAGE DETECTOR FAILED CCT BKR/LOAD	220.00	0.00	20 00
2	2.2.3	1	1	CONTROL UNIT FAILED CCT BKR/LOAD	220.00	0 00	20.00
1	2 2.3	1	1	CONTPOL UNIT FAILED CURRENT SENSI	30 30	0.00	1.50
7	2.2.3	1	1	TIVE ELEMENT FAILED CURRENT SENSI	30 30	0 00	1.50
1	2.2.3	1	1	TIVE ELFMENT FAILED INDIVIDUAL LI	3 70	0.00	0.50
2	2.7 3	1	1	NE CCT. BREAKER FAILED INDIVIDUAL LI	3.70	0 00	0.50
1	2 2.3	1	1	NF CCT. BREAKER FAILED MONITOR METER	0.04	0 00	0.50
2	2 2-3	1	1	(AC) FAILFD MONITOR MFTER	0 04	0.00	0 50
1	7.2.3	t	1	(AC) FAILED MONITOR METER	0 04	0.00	0 25
2	2 7.3	1	1	SWITCHES FAILED MONITOR METER	0.04	0 00	0.25

ı	2 2 3	1	1	SWITCHES FAILED REMOTE CONTRO L SWITCHES	0.47	0.00	0 25
?	7.2.3	1	1	FAILER PEMOTE CONTER L SHITCHES	0.47	0 00	r 25
1	2 2.3	1	ı	FATLED CCT_RKR_E CRO UND LEAVAGE DETECTOR	76.80	0.00	20 00
2	2.2.3	1	1	FAILED CCT BKR.& GRO	76.80	0.00	20.00
t	7 2.3	1	1	UND LEAKAGE DETECTOR FAILED CCT BKR.& LOA	84.80	0.00	20.00
2	2.7.3	1	t	D CONTROL UNIT FAILED CCT.AKR F LOA	84.80	0 00	20.00
1	2.2 3	1	ı	D CONTROL UNIT FAILED CURRENT SENSI	11.50	0.00	12 00
2	223	t	1	TIVE FLEMENT FAILED CUPRENT SENS!	11.50	0 00	12.00
1	2 2 3	1	1	TIVE ELEMENT FAILED INDIVIDUAL LI	1.40	0.00	0 50
2	2 2 3	t	1	NE CCT. BREAVER FAILED INDIVIDUAL LT	1.40	0 00	0 50
1	2 2 3	1	1	NE COT BREAKER CALLED MONITOR METER	0.04	0 00	0.50
?	7 2.3	ī	1	S FAILED MONITOR METER	0.04	0.00	0+50
ı	2 2 3	1	1	FALLED MONITOR METER SWITCHES	0.04	0 00	0 25
2	2 2.3	1	1	FAILED MONITOR METER SWITCHES	0.04	0 00	0.25
1	2 2 3	1	1	FAILED REMOTE CONTRO L SWITCHES	0 18	0.00	0.25
5	2.2 3	1	1	FAILED REMOTE CONTRO	0.18	0.00 [0.25
1	2 3.1	ı	1	PARTITION FASTNERS	25.00	0 00	0 25
i	2 3 1	ī	i	ANTENNAS AND SOLAR C	0.90	0 00	0 00
2	231	1	1	ANTENNAS AND SOLAR C	0 0 0	0.00	0 00
1	2 3.1	1	1	HORN ATPLOCK LATCH M FCHANISM ASSEMBLIES	1000 00	0 00	50.00
1	2-4-1	1	1	FAILED KU BAND REFLE CTOR, PEFPEPOSITIONER	1408.00	0.00	440.00
2	2 4 1	t	1	FAILED KU BAND REFLE CTOR, FEFOR POSITIONSP	1408 00	0 00	440 00
• 1	2 4 I	1	t	FAILED KU BAND MIXEP /MULTIPLEXER	8.80	0 00	20 00
Z	2.4 1	1	1	FAILED KU MAND MIXER /MULTIPLEXER	8.90	0.00	20.00
1	2 4.1	Ĭ	1	FAILED KU SAND FERRI TE SWITCHEPSEQUATRUP	1.40	0 00	6.00
2	7-4-1	1	1	FAILED KU BAND FERRI TE SWITCHERSEQUADRUP	1.40	9-00	6 00
1	2.4 t	i	1	FAILED KU BAND FM TP Ansmitter	60.00	0.00	25.00
2	2.4 1	1	l	FAILED KU BAND FM TR ANSMITTER	60.00	0 00	25.00
2	2 4.1	1	1	FAILED FM TRANSMITTE	6.60	0 00	10 00

2	2.4 1	1	1	R MODEM FAILED KU BAND EM RE	2 40	0.00	10 00
		_		CEIVED			
2	2.4.1	1	t	FAILED FM RECEIVER M	1 90	0.00	5 00
1	2 4.1	1	1	FAILFD KU BAND PM TR	2 20	0.00	10.00
•	2 / 1.	1	1	ANSMITTER FAILED KU BAND PM TR	2 20	0.00	10-00
2	2.4 1:	1	r	ANSMITTER	2 20	0.00	10100
?	2 4.1	1	1	FAILED PM TRANSMITTE	1.00	0.00	2.50
2	2.4 1	1	ı	R MODEM FAILED KU BAND PH RE	2.80	0 00	10 00
_				CEIVER FAILED PM RECEIVER M	3.30	0 00	5 00
2	2.4 1	1	1	ODEM	9490	0 00	2 00
1	2.4 1	2	1	FAILED S-BAND DIPLEX	0-84	0 00	6 00
2	2 4 1	2	i	ER/SWITCHES FAILED S-SAND DIPLEX	0 84	0.00	6 00
				FR/SWITCHES			e
1	7.4.1	_ 2	1	FAILED S-BAND FFRRIT E SWITCHES	0 07	0 00	5.50
2	2.4 1	2	1	FAILED S-BAND FERRIT	0.07	0.00	5.50
1	2 4.1	2	1	E SWITCHES FAILED S-BAND PM TRA	47,00	0.00	14-00
				NSPONDER			
2	2.4 1	2	1	FAILED S-BAND PM TRA NSPONDER	47.00	0.00	14 00
1	2.4 1	2	1	FAILED S-BAND FM TRA	42.00	0.00	12 00
2	2.4 1	2	1	NSMITTER FAILED S-BAND EM TRA	42.00	0 00	12.00
2	4+T +		•	NSMITTER		ŧ	
1	2 4-L	2	i	FAILED TRANSPONDER	12 00	0.00	10.00
? 1	7 4.1 2 4.1	2 ?	1	FAILED TRANSPONDER FAILED TRANSMITTER M	12 00 1.50	0.00	10.00 2 50
	2 441	,	•	ODEM	1.00		4 7 4
2	2 4-1	2	1	FAILED TRANSMITTER M	t 50	0.00	2.50
1	242	1	1	ODEM UHF SOLID STATE SWIT	0.84	0.00	12 00
-	· · -			CH MULTIPLEXER		_	
2	7 4 7	1	1	CH MULTIPLEXER	0 84	0.00	12.00
1	7.4 2	1	1	FAILED WHE EN TRANS	0.20	0.00	1.50
2	2.4.2	1	1	MITTER FAILED UMF EM TRANS	0.20	0 00	1.50
Z	4,4,4	•		MITTER	· · · · ·		
1	2.4 2	1	1	FAILED UHF TRANSMITT FR MODEM	0 56	0.00	2.00
2	2.4.2	1	1	FAILED UHF TRANSMITT	0.56	0.00	2.00
	2 4 2	,		ER MODEM	3 50	0.00	3.00
ı	2 4.2	1	1	FAILFO WHF FM VIDEO RECFIVER	5 70	0.00	9400
2	2 4.2	1	1	FAILED UHF FM VIDEO	3 50	0 00	3.00
1	2 4 2	1	1	RFCETVFR FAILED UHF PM DATA F	3 40	0.00	3.00
-				ECFIVER	2 (2		
2	2 4.2	t	1	FAILED UHF PM DATA R FCFIVER	3 40	0 00	3.00
				· -			

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				TABLE 0-8 (Cont'd	1)		
				ALABER V V (COMV.	^/		
1	2 4 • 2	1	1	FAILED VIDEO RECEIVE P MODEM	8-6h	0 00	2 50
2	2.4 2	1	1	FAILED VIDED RECEIVE R MODEM	8.60	0 00	2.50
1	7.4 2	i	i	FATTED DATA RECFIVER	5.70	0 00	2 50
7	2 4-2	1	ì	FAILED DATA RECEIVER MODEM	5 70	0 00	2 50
1	2 4 2	2	1	SOLID STATE SHITCH/O UADRUPLEXER	0.84	0.00	12 Or
1	2-4-2	2	1	FAILED VHE VOICE RAN GING T/R	84 00	0.00	15 00
2	7 4 2	?	1	FAILED VHF VOICE RAN	84 00	0 00	15.00
1	2 4.2	2	1	FAILED RANGING MODEM	40 00	0 00	9.00
2	2 4-2	2	i	FATLED RANGING MODEM	40 00	0 00	9 00
i	2 4 2	2	î	FAILED VOICE MODEM	' 3 80	0.00	5 00
5	2 4 2	2	i	EATLED VOICE MODEM	3 80	0.00	5 00
í	2 4 2	2	ì	FAILED VHE DATA T/R	84 00	0 00	15 00
	2 4 2	5	î	FAILED VHE DATA T/R	84 00	0.00	15 00
?				FAILED DATA MODEM	1 70	0 00	4 00
1	2 4-2	2	ī	FAILED DATA MODEM	1 70	0 00	4 00
?	2 4 • 2	2	1			0 00	18 00
1	2 4 2	3	1	FAILED SCLID STATE S	1 76	., ., .,	10 00
				WITCH/DUPLEXER			2 00
1	7 4 2	3	1	FAILED VHE EM XMTR/P	1 64	0 00	2.00
2	2 4 7	3,	i	FAILED VHF FM XMTR/F CVR	1 64	0 00	2.00
1	7 4 2	3	1	FAILED MODEM	6 56	0 00	8 0 0
2	2 4 2	3	L	FAILFO MOOFM	6.56	0 00	8 0 0
i	2 4 3	2	1	FAILFD TV CONTROL MO DEM	17.10	ი იი	3.00
7	2.4.3	1	1	FAILED TV CONTROL MO	17.10	0 00	3.00
1	2 4 3	1	1	FAILED ANALOG SYNC/T	5.00	0 00	5 00
2	7 4 3	1	1	FAILED ANALOC SYNC/T FST MODEM	5 00	0 00	5 00
1	2 4 3	I	i	FAILED PICITAL DATA MODEM	5 00	0 00	5 00
7	2 4.3	1	1	FAILED DICITAL DATA Modem	5 00	0 00	5 00
7	2 5 I	1	1	CONTROLS/APITHMETIC MODULES POOK MODULE	48 75	ი იი	2 50
7	2 5 1	ì	i	NTE WYIN WEWOSA BUÜK WUU	7 50	0 00	2 50 '
1	2 5.1	1	i	MAGNETIC DISC	5 00	0 00	5.0n
ż	2 5 1	ī	1	MACNETIC DISC	5.00	0.00	5.00
ï	žšì	ī	į	TAPE TRANSPORTS	101.60	0 0	40 00
Ž	251	ī	Ĩ	TAPE TRANSPORTS	101 60	0 00	40 00
2	251	î	î	CIRCUIT BOARD	9.00	0 00	0 25
ī	2.5.1	ì	i	CATHODE PAY TUBE	17 50	0 00	2 00
2	2 5 1	i	ì	KEYPHARD TERMINAL	6.75	0 00	6 75
,	· , L			AT THE CONTRACTOR		- 47	,

LANCHUTE PROPE, DAMA

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FXPT TOTAL DAILY RATE SATCH SIZE

0 00 0 10

0 10

				GED			
ı	3 7.1	1	1	MAGNETIC TAPE	2 50	0 00	7 50
1	3 7 1	1	2	MACNETIC TAPE	7 50	0 00	2.50
1	3.2.1	2	1	MACNETIC TAPES	5.00	0.00	2.50
ı	3 7 1	7	2	PRESSURIZED CONTAINE	250.00	0.00	50.00
1	321	7	2	MAGNETIC TAPE	5 00	0.00	2.50
1	3 3 7	1	1	FCG SHELLS	0 70	0 00	0.35
2	3 4 3	7	1	THERMISTER PROBE	I 08	0 01	0.00
2	351	?	1	INSTRUMENT WASTF	5 00	0 00	5.00
1	351	2	2	NEFDLE	0.20	0.00	0.00
ì	3 5.1	2	6	NEEDLE	0.10	0.00	0.00
1	351	2	6	INSTRUMENTS	4 00	0.00	0.15
1	3 5 I	2	8	INSTRUMENTATION	IU 00	0 03	0.03
ï	3 5.1	2	9	INSTRUMENTATION	10 00	0.03	0-03
1	3 5 L	2	10	N=FDLE	0.10	0.00	0.05
1	3 5 1	2	11	INSTRUMENTS	1.50	0.00	0.03
ī	3.5.1	ž	13	NEFOLES	0.20	0.00	0.00
1	3 5 1	2	14	NFFOLE	0.10	0.00	0 00
1	3 5 1	- 4	3	NEEDLES	1.00	0 00	0.02
î	3 5.1	5	ż	CHEMICALS (BLOOD SUC	0 25	0 00	0.00
_	•	-	_	AR ETC.)			
1	351	5	4	CHEMICALS (BLOOD SUC	0.25	0.00	0 00
~		-		ARI GAS ANALYSIS			
1	3.5.1	5	4	CHEMICALS (BLOOD SUG	0 25	0 00	0.00
_	*****		•	AR) URINE N			
1	3-5 1	5	6	CHEMICALS (BLOOD, SUG	0 25	0 00	0 00
-		_		ARI UPINE N.			
l	351	6	1	NEEDLE	1 50	0.00	0.03
ì	3-5 1	6	5	INSTRUMENTS	5 00	0 00	0.80
î	3 5 î	7	í	NFFDLF	0 40	0.00	0.01
î	3 5 1	7	2	NEEDLE	0 10	0 00	0.00
ī	3 5 2	1	i	RECORDING TAPE	10 00	0 00	0 20
ĩ	352	ī	Ž	PECORDING TAPE	10 20	0.00	0 20
ī	3.5 2	ī	3	RECORDING TAPE	10 00	0 00	0.60
î	3 5 2	ī	4	RECORDING TAPE	1.50	0.00	0.12
ī	3 5.7	ĩ	5	RECORDING TAPE	1 50	0.00	0.12
ī	3 5 2	ĩ	6	RECORDING TAPE	1.00	0.00	0 08
i	3 5.2	i	7	RECORDING TAPE	1 00	0.00	0 08
î	3 5 2	ī	ē	RECORDING TAPE	10 00	0 00	0.80
ì	3 5.2	å	ĩ	RECORDING TAPE	15 00	0.00	0.30
î	3 5.2	4	<u>,</u>	RECORDING TAPE	1 00	0 00	0.08
î	3 5 2	4	í	INSTRUMENTS	1.00	0 00	0.08
î	3.5.2	4	ĝ	PECORDING TAPE	2 00	0 00	0.11
ī	3 5.2	4	ż	INSTRUMENTATION	5.00	0 00	0 30
î	3 5 2	4	ર્વે	RECORDING TAPE	2 00	0 00	0 11
ì	3.5 2	4	4	RECORDING TAPE	1 00	0 00	0 08
1	3 5-2	4	5	RECORDING TAPE	1 00	0.00	0.08
ì	3 5.2	4	6	RECORDING TAPE	1 00	0.00	0 08
ì	3.5.2	4	ř	RECORDING TAPE	1.00	0.00	0 06
i	3.5 2	4	रं	NEEDLES	1 00	0 00	0.01
í	3 5 - ?	4	8	RECORDING TAPE	0.50	0 00	0.04
i	3.5 2	4	9	PECORDING TAPE	1.50	0 00	0 12
ì	3.5 2	4	ιó	PECORDING TAPE	2 00	0 00	0 11
ì	3.6 2	ī	i	EXPERIMENTAL FACILIT	1100.00	0 00	1100.00
-	7 - 17 M	•	•	Y			
2	367	1	1	EXPERIMENTAL FACILIT	1100 00	0 00	1100-00

TABLE 0-8 (Cont'd)

1 ?	3 6 2 3 6 2 3 7 1	1 1 1	1 1 1	ACCESSORA LUGFING VCCESSORA LUGFING COMBREZZOB (CARDCENI	1320 00 1320 00 12.00	120 00 120 00 0-22	120 OF 120 OF 12 OF
1	371	2	f 1	COMPRESSOR (CRYOCENT	12.00	0 00	12 00
1	3 7 1	4	1	C) FAILTH CRYNGFNIC CHM PPESSOR	12 00	0.00	12.00

SEARCH REPORT #7 - MATERIAL ORIGINATED IN MAN ORIENTED FUNCTION, EXCEEDS 100 LBS/YEAR FOR 100 MAN STATION, IS CONTAMINATED OR PATHOGENIC, AND IS TEXTILE OR PAPER

SEARCH NO. 7

THE SEARCH HAS USED * OR/AND * LOGIC ON THE FOLLOWING KEYWORDS

*OR*ITEM	'AND'ITEM	KEYHORD	VECTOR
1	1	1. (SZC FUNCTION)	16
1	2	100. (QUANTITY (3) - LOWER LIMIT	9
1 ?	3	CONTAMINATED (ATTRIBUTE) PATHOCENIC (ATTRIBUTE)	11 11
1 ?	4 -	TEXTILE (ATTRIBUTE) PAPER (ATTRIBUTE)	11 11
			المراجع

THE FOLLOWING ITEMS WERF RETRIEVED

K=YWOPD NO.	GROUP KEY	FQUIP./FXPT NO.	WASTE SOURCE NO.	WASTE ITEM	12 MFN	OUANTITIE'	\$ 100 MEN ******
1. 1	1 2 2	1	1	SOILED SHIRT SHORT S	428.00	1782.00	3564.00
1, 7 2, 3 1, 4				•			
l. 1 1. 7	1.2.2	1	1	SOTLED TROUSERS	609.00	2541.00	5082.00
7, 3 1, 4 1, 1 1, 2	1 7.2	ŧ	1	SOILED UNDERSHOPTS	440.00	1836.00	3672.00
2, 3 1, 4 1, 1	1 2 2	ı	1	SOILED UNDERSHIRTS	440.00	1836-00	3672.00 ,
1 · 2 2 · 3 1 · 4 1 · 1	1.2.2	ì	1	SOILED SOCKS (PAIP)	103-00	432.00	864.00
1 · 2 2 · 3 1 · 4 1 · 1	122	3	1	ABSORBENT WIPES	38 60	160.80	321 60
1+ 2 2+ 3 2+ 4 1+ 1	141	1	1	WASTE CONTAINER (FIL	940.00	3915 00	7795.00
1, 2	* -r *	•	•	LFD)		- ,	·

2, 4 1. l	1 4 1	1	2	WASTE CONTAINER (FILL	1387.00	5742 00	11450 00
1, 7 2, 3 2, 4 1, 1	1 4 1	1	3	WASTE CONTAINED (FIL	2000 00	8333.00	16666 00
1, 2 2, 3 2, 4							

TABLE 0-10 SEARCH REPORT #8 - MATERIAL IS SOLID AND REQUIRES CLEANING FOR RECLAMATION OR IS TEXTILE AND REQUIRES LAUNDERING FOR RECLAMATION

SEARCH ND. 8

THE SEARCH HAS USED . OR/AND . LDGIC ON THE FOLLOWING KEYWOPDS

0P • ITF4	*AND*ITEM	KEAMUSO T	VECTOR
1	1	SOLID (STATE)	10
-	S	CLEAN (RECLAMATION REQIUREMENT)	14
2	1	TEXTILE (ATTRIBUTE)	11
	2	LAUNDER (RECLAMATION REQIUREMENT)	14

THE FOLLOWING ITEMS HERE RETRIEVED

KEYHDRD	SROUP	COUIO /EXPT	WASTE	WASTE ITEM		OUANTITI	ES .
NO.	KFY	NO	SOURCE NO.		12 MFN	50 MEN	100 MEN
1477		****	70			***	****
ı	1 2.1	1	1	USED INFLATABLE PILL	16 00	67 00	133 00
1	1 2.1	1	1	USED INFLATABLE MATT	48.00	200 00	400 00
2	1 2 2	1	1	SOILED SHIRT SHORT S	428.00	L782 00	3564.00
7	1.2 2	1	1	SOILED TROUSERS	609 00	2541.00	5082 00
2	1 7 2	î	i	SOILED JACKET, LIGHT	8.00	34-00	68.00
2	1.2 2	1	1	SOILED UNDERSHORTS	440 00	1836 00	3672.00
2 7	1.2 2	1	1	SOILED UNDERSHIRTS	440.00	1836.00	3672.00
2	1.2.2	î	1	SOILED SOCKS (PAIR)	103 00	432 00	864.00
2	1.2.2	i	1	SOILED SHOES (PAIR)	7 00	28 00	56.00
2		2	1	BLANKET	24 00	100 00	200.00
ŗ	1 2.2		1		38.60	160.80	321 60
1	1 2.?	3	1	ABSORBENT WIPES			
1,	1 4.1	1	ĭ	FILTERS (BACTERIA CO NTROL)	2.60	10.80	21.60
1	1.4 1	1	?	FILTERS (BACTERIAL C ONTROL)	2 60	10 80	21.60
1	1 4-1	1	3	FILTERS (BACTERIAL CONTROL)	2 60	10 80	21.60
t	1-4 1	1	3	FILTERS, FECAL AND V	240 00	1000-00	2000.00
1	1.4 2	1	1	FILTERS/TRAPS	156 00	650 00	1300.00
2	1.4 2	ī	î	TOWELS	1400 00	5880 00	11760 00
2	1 4 2	î	î	WASHCLOTHS	150 00	627.00	1254.00
2	1 4.7	i	3	USED TOWELS	1200.00	5000 00	1000.00
4	1 4.7	1	3	0310 108123	11.00.00	2.00	1000400
							TF UNIT WEICHT
t	2.1 1	2	2	FAILED FILTER	8 76	0.00	1 00
i	2.5 1	?	1	DISCARDED PICTURES	2550 00	0.70	
ī	2 5 1	7	i	FRITING FILM SCRAPS	2550 00	0 70	0 00

					``		
					FXPT TOTAL DA	TLY RATE	MATCH SITE
					****	****	****
1	3.3 1	2	1	VERMICULITE	4 00	იიე	4 00
ì	3.4.4	1	1	CONTAINERS	4 00	0 00	1.30
ï	3.4.4	1	1	SCAL PEL	1 90	0 00	0.30
1	3 4 4	?	1	GLASSWARF	8.00	n 00	9.00
i	3 4 4	5	1	CONTAINFOS	24.00	0 00	8 00
ī	3.4 4	5	1	VFRMICULITE	5 0 የ	0 00	1 70
1	3 4.4	6	ı	VERMICUI ATF	5.00	0 00	5 00
ī	3 4 4	7	1	VERMICULITE	7 00	0 08	0.08
1	3 5 1	2	2	SYR I NGF	10 80	0 00	0.18
ī	3 5 T	2	2	NEEDLE	0.20	0 00	0.00
ī	3 5 2	4	7	NFFDLES '	1 00	0 00	0.01

SUPPORT LIFE FUNCTIONS

MONITOR AND MAINTAIN CREW HEALTH AND SAFETY

```
S/C SUBSYSTEM .... MEDICAL DISPENSARY
   GROUP KEY .... 1.1.1
1
                                   ž.
         BASIC FUNCTION ...... SUPPORT LIFE
         FUNCTIONAL REQUIREMENT .... MAINTAIN AND MONITOR CREW HEALTH
                                  AND SAFETY
** EQUIPMENT/EXPERIMENT NO. 1 ..... ROUTINE EXAMINATION OF CRFW MEMB
                                   ERS
         S/C AREAS ...... DISPENSARY
**** WASTE SOURCE NO. 1 .... ROUTINE EXAMINATION OF CREW MEMBERS
         DOCUMENT NO. ..... 1.1.1.1.1*
         REFERENCE NO. 1 .. EXPERIMENT PROGRAM FOR EXTENDED EARTH OF
                           BITAL MISSIONS, REVISION NO. 1, SEPTEMBER 1
                           , 1969, NASA OMSF.
         REFERENCE NO. 2 .. DEFINITION OF SPACE FLIGHT MEDICAL KITS
                           A RATIONALE, BROOKS AIR FORCE BASF, TEXAS
                           *AMD TR 67-1, MAY 1967.
***** WASTE ITEM NO. 1 ... TONGUE DEPRESSOR
         STATE ..... SOLID
         DENSITY ..... 40.00 LBS/CU. FT.
         ATTRIBUTES ..... WOOD, CONTAMINATED
         ELEMENTS PRESENT ..
         COMPOSITION ..... CELLULOSE
         GENERATION DATA ...
                 NO. OF MEN , RATE(LBS/YEAR)
                   12
                                            0.75
                   50
                                            3.10
                  100
                                            6.20
         RECLAMATION ACTION .. STERILIZE
***** WASTE ITEM NO. 2 .... THERMOMETERS
         STATE ..... SOLID
         DENSITY ..... 240.00 LBS/CU. FT.
         ATTRIBUTES ...... GLASS, CONTAMINATED
         ELEMENTS PRESENT ..
         COMPOSITION ..... BOROSILICATES
         GENERATION DATA ...
NO. OF MEN
                                      RATE(LBS/YEAR)
                   12
                                            0.88
                                            3.70
                   50
                  100
                                            7.40
         RECLAMATION ACTION .. STERILIZE
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S/C SUBSYSTEM .... MEDICAL DISPENSARY
   GROUP KEY .... 1.1.1
** EQUIPMENT/FXPERIMENT NO. I .....ROJTING EXAMINATION OF CREW MEMB
                                   FRS
**** WASTE SOURCE N). I .... ROUTINE FXAMINATION OF CREW MEMBERS
***** WASTE ITEM NO. 3 .... SHEFTS
         STATE ..... SPLIR
         DENSITY ..... 6.00 LBS/CU. FT. ATTRIBUTES ..... PAPER CONTAMINATED
         ELEMENTS PRESENT ..
         COMPOSITION ..... CELLULOSE
         GENFRATION DATA ...
                 NO. OF MEN
                                     RATE(LBS/YEAR)
                                          87.00
                   12
                                          365.00
                   50
                                          730.00
                  100
         RECLAMATION ACTION .. WASH
**** * WASTE ITEM NO. 4 .... PACKAGING MATERIAL
         STATE ..... SOLID
         DENSITY ..... 2.50 LBS/CU. FT.
         ATTRIBUTES ..... PAPER, PLASTIC, CONTAMINATED
         FLEMENTS PRESENT ..
         COMPOSITION ..... CFLLULOST DELYFTHLENE
         GENERATION DATA ...
                 NJ. 1.7 141
                                     FATE(LPS/YEAC)
                                            0.52
                   12
                                            4.40
                   5)
                                            5.20
                  100
         PTOLAMATION ACTION .. FIUST AS IS
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S/C SUBSYSTEM .... MEDICAL DISPENSARY
   GROUP KEY ..... 1.1.1
** EQUIPMENT/EXPERIMENT NO. 2 ..... ILLNESS EVENT
         S/C ARFAS ..... DISPENSARY
**** WASTE SOURCE NO. 1 .... ILLNESS EVENT
         DOCUMENT NO. ..... 1.1.1.2.1*
         REFERENCE NO. 1 .. EXPERIMENT PROGRAM FOR EXTENDED EAPTH OP
                           BITAL MISSIONS, REVISION NO. 1, SEPTEMPER 1
                            ,1969,NASA DMSF.
         REFERENCE NO.
                       2 .. DEFINITION OF SPACE FLIGHT MEDICAL KITS
                            A RATIONALE, BROOKS AIR FORCE BASE, TEXAS
                            ,AMD TR 67-1, MAY 1967.
         REFERENCE NO. 3 .. USE OF THE BEN FRANKLIN SUBMEISIBLE AS A
                            SPACESTATION ANALOG, VOLUME II PSYCHOLOG
                           Y AND PHSIOLOGY OSR-70-8, CONTRACT NAS 8-
                           30 172
***** WASTE ITEM NO. 1 ... MEDICATION TUBES
         STATE ..... SOLID
         DENSITY .....
                           10.36 LBS/CU. FT.
         ATTRIBUTES ..... PLASTIC, CONTAMINATED
         ELEMENTS PRESENT ..
         COMPOSITION ..... POLYSTYRENE
        GENERATION DATA ...
                                       RATE(LBS/YEAR)
                 NO. OF MEN
                   12
                                           7.30
                   50
                                           14.60
                  100
                                           21.90
         RECLAMATION ACTION .. N/R
***** WASTE ITEM NO. 2 .... SPRAY BOTTLES
         STATE ..... SOLID
         DENSITY ..... 41.47 LBS/CU. FT.
         ATTRIBUTES ..... PLASTIC CONTAMINATED
         ELEMENTS PRESENT ..
         COMPOSITION ..... POLYSTYPENE
         GENERATION DATA ...
                 NO. OF MEN
                                      RATE(LBS/YEAR)
                   12
                                            0.48
                   50
                                            8.00
                  100
                                           14.60
         RECLAMATION ACTION .. N/R
```

```
SIC SUITS STE " .... LITE L HIS DEMISARY
      2740 Kfv .... 1.1.1
 " + L LIP E TYPYPE'L ENT PI. 2 ..... ILLY 'SS EVENT
    WISTE STREEN NI. I ... TELNESS EVE T
  "这一" "这一就不一点,你会没有要要了这些了一家,我们会会看到,一个女人的人,我们就是我们的人,这一个
         151 ITE 1 My. . . . . OISPICABLE FIFE MASKS
           " FATE ..... SGIIT
           HE SITY ALLONDON
                               C.70 1'S/CU. 51.
           ATTRIBUTES ..... PAPER, CLARA IMATED
           FIFTENTS DUE IE IT ..
           COMPISITION ..... CELLULOSE
           CENTRATICY DUTA ...
                    /). Or 'th
                                          RATC(LBS/YEAF)
                      12
                                               3.65
                      5.)
                                                7.30
                                               10.95
                     Lyn
           RECLAMATION ACTION .. N/R
**** * WASTE ITE! NO. 4 ... PILL BOXES
           STATE ...... SOLID
           DENSITY ......
                              11.40 L9S/CU. FT.
           ATTRIBUTES ...... PLASTIC, CONTAMINATED
           ELEMENTS PRESENT ...
           COMPUSITION ..... POLYSTYRENE
           ... PTAG KOITASBURD
                    NO. DE VEN
                                          RATE(LRS/YEAR)
                      12
                                                3.65
                      50
                                                7.30
                     101
                                               10.35
           RECLAMATION ACTION .. N/R
 ** * * WASTE ITE1 V). 5 .... MEDICATION 30.TTLES
           STATE ..... SOLIP
           FENSITY ..... 5.20 LAS/CL. FT.
           ATTRIBUTES ..... PLASTIC, CONTA MINATED
           ELEMENTS PRESENT ..
           CEMPISITION ..... POLYSTYKENE
           GENFRATION DATA ...
                    NJ. OF JEN
                                          RATE(LBS/YEAR)
                      12
                                                0.20
                      50
                                                2.00
                     100
                                                3.65
           PECLAPATION MOTION .. AVP
```

```
S/C SUBSYSTEM .... MEDICAL DISPENSARY
   GROUP KEY .... 1.1.1
** EQUIPMENT/EXPERIMENT NO. 2 .....ILLNESS EVENT
**** WASTE SOURCE NO. 1 .... ILLNESS EVENT
***********************
***** WASTE ITEM NO. 6 .... BAND AIDS
         STATE ..... SOLID
         DENSITY ..... 0.30 LBS/CU. FT.
         ATTRIBUTES ..... PLASTIC, PAPER, CONTAMINATED
         FLEMENTS PRESENT ..
         COMPOSITION ..... PLASTIC, CELLULOSE
         GENERATION DATA ...
                 NO. OF MEN
                                      RATE(LBS/YEAR)
                   12
                                            0.03
                   50
                                            0.08
                  100
                                            0.16
         RECLAMATION ACTION .. N/R
***** WASTE ITEM NO. 7 .... DRESSINGS AND ADHESIVES
         STATE ..... SOLID
         DENSITY ..... 6.07 LBS/CU. FT.
         ATTRIBUTES ..... PLASTIC, PAPER, CONTAMINATED
         ELEMENTS PRESENT ..
         COMPOSITION ..... CELLULOSE, PLASTIC
         GENERATION DATA ...
                 NO. OF MEN
                                      RATE(LBS/YEAR)
                   12
                                            0.00
                   50
                                            0.02
                  100
                                            0.08
         RECLAMATION ACTION .. N/R
***** WASTE ITEM NO. 8 .... CATHETER
         STATE ..... SOLID
         DENSITY ..... 8.26 LBS/CU. FT.
         ATTRIBUTES ..... PLASTIC, CONTAMINATED
         ELEMENTS PRESENT ..
         COMPOSITION ..... POLYVINYL
         GENERATION DATA ...
                 NO. OF MEN
                                     RATE(LBS/YEAR)
                   12
                                            0.00
                   50
                                            0.00
                  100
                                            0.05
         RECLAMATION ACTION .. N/R
```

```
SIC SUBSYSTEY .... AFOICAL DISPENSARY
    GROUP KEY .... 1.1.1
    .. :
** FOUIPMENT/FKPERIMENT NO. 2 ......ILLNESS EVENT
*** +\STE SOURCE A). 1 ... ILI 'ESS EVENT
在望家来,是我的女子是一家,在大大家也有大家大家的人家的女子家有什么女子的人家 医乳头病性病毒性病性病性病性病性病性病性病性病病 化二苯基酚
**** YASTE ITE! NI. 9 ... AVTISEPTIC SOLUTION
          STATE ..... SOLTO
          DENSITY .....
                             4.52 LRS/fU. FT.
          ATTPIBUTES ..... GLASS, CONTAMINATED
          FLEVENTS PRESENT ..
         CCMPOSIFION ..... BURCSILICATES
         GENERATION DATA ...
                                         RATE (LBS/YEAR)
                  NU. UF IFII
                    12
                                               0.04
                    50
                                               0.12
                   100
                                               0.48
         PECLAMATICN ACTION .. A/R
*** - WASTE ITEN NO. 10 .... SPLINT
          STATE ....... SCITI
          CENSITY .....
                             4.90 LRS/Cd. FT.
          ATTRIBUTES ..... METAL, CONTA 15 NATED
          ELEMENTS PRESENT ..
          COMPOSITION ..... STEFL
          GENERATION DATA ...
                  NJ. OF YEN
                                         RATE(LBS/YFAR)
                    12
                                               0.00
                                               0.00
                    50
                    100
                                               0.10
          RECLAMATION ACTION .. STEPILIZE
* * * * WASTE ITE : NJ. 11 .... GLCVES
          STATE ..... SOLID
          DENSITY .....
                             C.70 LBS/CU. FT.
          ATTRIBUTES ...... PLASTIC, CONTAMINATED
          ELEMENTS PRESENT ..
          COMPOSITION ..... POLYETHYRENE
          GENERATION DATA ...
                   VO. OF 1EV
                                         RATE(LAS/YEAR)
                    12
                                               0.24
                                               0.40
                     50
                    100
                                               1.04
          RECLAMATION ACTION .. N/R
```

```
S/C SUBSYSTEM .... MEDICAL DISPENSARY
   GROUP KEY .... 1.1.1
** EQUIPMENT/EXPERIMENT NO. 2 .....ILLNESS EVENT
**** WASTE SOURCE NO. 1 .... ILLNESS EVENT
***********************
***** WASTE ITEM NO. 12 ... EYE PATCHES
         STATE ..... SOLID
         DENSITY ..... C.70 LBS/CU. FT.
         ATTRIBUTES ..... PAPER, CONTAMINATED
         ELEMENTS PRESENT ...
         COMPOSITION ..... CELLULOSE
         GENERATION DATA ...
                 NO. OF MEN
                                      RATE(LBS/YEAR)
                   12
                                           0.04
                   50
                                           0.40
                  100
                                           1.03
         RECLAMATION -ACTION .. N/R
***** WASTE ITEM NO. 13 .... PACKAGING
         STATE ..... SOLID
         DENSITY ..... 0.08 LBS/CU. FT.
         ATTRIBUTES ..... PAPER, CONTAMINATED
         ELEMENTS PRESENT ..
         COMPOSITION ..... CELLULOSE
         GENERATION DATA ...
                 NO. OF MEN
                                      RATE(LBS/YEAR)
                   12
                                           0.75
                   50
                                           2.00
                  100
                                           3.65
         RECLAMATION ACTION .. REUSE AS IS
```

S/C SUBSYSTEM DENTAL DISPENSARY GROUP KEY 1.1.2

RASIC FUNCTION SUPPORT LIFE FUNCTIONAL REQUIREMENT ... MAINTAIN AND MONTIOR CREW HEALTH AND SAFETY

** 5 QUIPMENT/EXPERIMENT NO. 1 POUTINE EXAMINATION AND ILLNESS EVENT

S/C AREAS DISPENSARY

**** WASTE SOURCE NO. 1 ROUTINE EXAMINATION AND ILLNESS EVENT

DOCUMENT NO. 1.1.2.1.1*

REFERENCE NO. 1 .. SANITATION AND PERSCNAL HYGIENE DURING A ERCSPACE MISSIONS MRL TDR 62-68 LIFE SUP PORT SYSTEMS LABORATORY, WPIGHT-PATTERSON AIR FORCE BASE, JUNE 1962.

***** WASTE ITEM NO. 1 DENTAL PROBE
STATE SOLID
DENSITY 49C.00 LBS/CU. FT.

ATTRIBUTES METAL CONTAMINATED

ELEMENTS PRESENT ..

COMPOSITION STEEL

GENERATION DATA ...

NO. OF MEN RATE(LBS/YEAR)
12 1.56
50 15.60
100 31.20

RECLAMATION ACTION .. STERILIZE

**** WASTE ITEM NO. 2 DENTAL MIRROR

STATE SOLID

DENSITY 490.00 LBS/CU. FT. ATTRIBUTES METAL CONTAMINATED

ELEMENTS PRESENT ..

COMPOSITION STEEL

GENERATION DATA ...

NO. OF MEN RATE(LBS/YEAR)
12 0.26
50 26.00
100 52.00

RECLAMATION ACTION .. STERILIZE

```
11/30/70
                                                      PAGE 9
                      RUN NO. ** 2 **
S/C SUBSYSTEM .... DENTAL DISPENSARY
   GROUP KEY .... 1.1.2
** EQUIPMENT/FXPERIMENT NO. 1 ........ROUTINE EXAMINATION AND ILLNESS
                                  EVENT
**** WASTE SOURCE NO. 1 .... ROUTINE EXAMINATION AND ILLNESS EVENT
***** WASTE ITEM NO. 3 .... EXTRACTION PLIERS
         STATE ..... SOLID
         DENSITY ..... 490.00 LBS/CU. FT.
         ATTRIBUTES ..... METAL CONTAMINATED
         ELEMENTS PRESENT ..
         COMPOSITION ..... STEEL
         GENERATION DATA ...
                                     RATE(LBS/YEAR)
                 NO. OF MEN
                  1.2
                                           0.00
                                           0.00
                  50
                  100
                                           0.20
         RECLAMATION ACTION .. STERILIZE
***** WASTE ITEM NO. 4 .... SCALPEL
         STATE ..... SOLID
         DENSITY ..... 490.00 LBS/CU. FT.
         ATTRIBUTES ..... METAL CONTAMINATED
         FLEMENTS PRESENT ..
         COMPOSITION ..... STEEL
         GENERATION DATA ...
                 NO. OF MEN
                                     RATE(LBS/YEAR)
                                           0.00
                   12
                   50
                                           0.00
                                           0.06
                  100
         RECLAMATION ACTION .. STERILIZE
***** WASTE ITEM NO. 5 .... DRUG AND BOTTLE
         STATE ..... SDLID
         DENSITY ..... 52.57 LBS/CU. FT.
         ATTRIBUTES ..... GLASS CONTAMINATED
         ELFMENTS PRESENT ..
```

RATE(LBS/YEAR)
0.04

0.12

COMPOSITION BOROSILICATES

NO. OF MEN

12 50

100
RECLAMATION ACTION .. N/R

GENERATION DATA ...

```
S/C 3UBSYSTEM .... DENTAL DISPENSARY
   GROUP KEY .... 1.1.2
* FOUTPMENT/EXPERIMENT NO. 1 .....POUTINE EXAMINATION AND ILLNESS
                                  EVENT
**** WASTE SOURCE NO. 1 .... ROLTINE EXAMINATION AND ILLNESS EVENT
**** WASTE ITEM NO. 6 .... AVAESTHETIC BOTTLE
         STATE ..... SOLID
         DENSITY ..... 52.57 LBS/CU. FT.
         ATTRIBUTES ..... GLASS CONTAMINATED
         ELEMENTS PRESENT ..
         COMPOSITION ..... BORDSILICATES
         GENERATION DATA ...
                 NO. OF YEN
                                     RATE(LPS/YEAR)
                  12
                                           0.00
                   50
                                           0.00
                                           0.04
                  100
         REGLAMATION ACTION .. N/R
**** WASTE ITEM NO. 7 .... DRESSING PAD
         STATE ..... SDLID
         DENSITY ..... C.30 LPS/CU. FT.
         ATTRIBUTES ..... GAUZE CONTAIMINATED
         ELEMENTS PRESENT ..
         CCMPOSITION ..... CELLULOSE
         GENERATION DATA ...
                 N3. OF MEN
                                     RATE(LBS/YEAR)
                  12
                                           0.00
                                           0.00
                   50
                  100
                                           0.00
         RECLAMATION ACTION .. N/R
***** WASTE ITEM NO. 8 .... SYRINGE
         STATE ..... SOLID
         DENSITY ....... 35.60 LBS/CU. FT.
         ATTRIBUTES ..... PLASTIC CONTAMINATED
         ELEMENTS PRESENT ..
         COMPOSITION ..... POLYSTYRENE
         GENERATION DATA ...
                 VO. OF MEN
                                     RATE(LBS/YEAP)
                  12
                                           0.00
                   50
                                           0.00
                  100
                                           0.01
         RECLAMATION ACTION .. N/R
```

```
S/C SUBSYSTEM .... DENTAL DISPENSARY
   GROUP KEY ..... 1.1.2
** EQUIPMENT/EXPERIMENT NO. ] .....FOUTINE EXAMINATION AND ILLNESS
                                 EVENT
*** WASTE SOURCE NO. 1 .... ROLTINE EXAMINATION AND ILLNESS EVENT
***** WASTE ITEM NO. 9 ... HEAD REST COVERING
        STATE ..... SOLID
        DENSITY ..... 6.07 LBS/CU. FT.
        ATTRIBUTES ..... PAPER CONTAMINATED
        ELEMENTS PRESENT ...
        CCMPOSITION ..... CELLULOSE
        GENERATION DATA ...
                NO. OF YEN
                                     RATE(LBS/YEAR)
                  12
                                          0.52
                                          5.20
                  50
                 100
                                         10.40
        RECLAMATION ACTION .. N/R
***** WASTE ITEM NO. 10 .... TOOTH
         STATE ..... SOLID
        DENSITY .....
                          0.00 LBS/CU. FT.
         ATTRIBUTES ..... BONE DISEASED
        ELEMENTS PRESENT ..
        COMPOSITION ..... CALCIUM
         GENERATION DATA ...
                NO. OF MEN
                                     RATE(LBS/YEAR)
                  12
                                          0.00
                  50
                                          0.00
                                          0.00
                 100
        RECLAMATION ACTION .. N/R
```

S/C SUBSYSTEM DISPENSARY HOUSEKEEPING

GROUP KEY 1.1.3

BASIC FUNCTION SUPPORT LIFE

FUNCTIONAL REQUIREMENT MAINTAIN AND MONITOR CREW HEALTH

AND SAFETY

** E JUIPMENT/EXPERIMENT NO. 1 MEDICAL

S/C AREAS MAINTENANCE

**** WASTE SOURCE NO. 1 MEDICAL

DOCUMENT NO. 1.1.3.1.1*

REFERENCE NO. 1 .. EXPERIMENTAL PROGRAM FOR EXTENDED EARTH ORBITAL MISSIONS REVISION DATED SEPTEMBE R 1968, NASA OFFICE OF MANNED SPACE FLIGH T.

***** WASTE ITEM NO. 1 TRASH HAMPER

STATE SOLID

DENSITY 0.35 LBS/CU. FT.

ATTRIBUTES PLASTIC CONTAMINATED

ELEMENTS PRESENT ..

COMPOSITION POLYSTYRENE

GENERATION DATA ...

NO. OF MEN RATE(LBS/YEAR)

12 0.00

50 0.00 100 0.00

_RECLAMATION ACTION .. REUSE AS IS

**** WASTE ITEM NO. 2 TRASH HAMPER BAGS

STATE SOLID

DENSITY 0.69 LBS/CU. FT.

ATTRIBUTES PLASTIC CONTAIMINATED

ELEMENTS PRESENT ...

COMPOSITION POLYETHYLENE

GENERATION DATA ...

NO. OF MEN RATE(LBS/YEAR)

12 3.00 50 10.95

100 21.90

RECLAMATION ACTION .. N/R

```
S/C SUBSYSTEM .... DISPENSARY HOUSEKEEPING
   GROUP KEY ..... 1.1.3
** EQUIPMENT/EXPERIMENT NO. 1 .....MEDICAL
**** WASTE SDURCE NO. 1 .... MEDICAL
STATE ..... SOLID
        DENSITY ..... 1C.37 LBS/CU. FT.
        ATTRIBUTES ...... GAUZE AND BACTERICIDE CONTAMINATED
        ELEMENTS PRESENT ...
        COMPOSITION ..... CELLULOSE
        GENERATION DATA ...
                NO. OF MEN
                                    RATE(LBS/YEAR)
                                        24.00
                  12
                  50
                                         87.60
                                         87.60
                 100
        RECLAMATION ACTION .. N/R
***** WASTE ITEM NO. 4 ... AUTOCLAVE CLOTHS-WRAPPING INSTRUMENTS
        STATE ..... SOLID
        DENSITY ..... 6.07 LBS/CU. FT.
        ATTRIBUTES ..... CLCTH CONTAMINATED
        ELEMENTS PRESENT ..
        CCMPDSITION ..... CELLULOSE
        GENERATION DATA ...
                NO. OF MEN
                               RATE(LBS/YEAR)
                  12
                                         2.00
                                         7.00
                  5 V
                 100
                                         7.00
        RECLAMATION ACTION .. REUSE AS IS
***** WASTE ITEM NO. 5 ... AUTOCLAVE WASTE WATER
         STATE ..... VAPOR
        DENSITY ..... 62.00 LBS/CU. FT.
        ATTRIBUTES ..... HOT
        ELEMENTS PRESENT ...
        COMPOSITION ..... WATER, IMPURITIES
        GENERATIC I DATA ...
                NO. OF MEN
                                    RATE(LES/YEAR)
                  12
                                         50.00
                                        183.00
                  50
                                        183.00
                 100
        RECLAMATION ACTION .. CONDENSE, STRAIN
```

```
S/C SURSYSTEM .... DISPENSARY HOUSEKEEPING GROUP KEY .... 1.1.3

** EQUIPMENT/EXPERIMENT NO. 1 .....MEDICAL
```

**** WASTE ITEM NO. 6 PACKAGING MATERIAL STATE SCLID DENSITY 0.08 LBS/CU. FT.

ATTRIBUTES PLASTIC CONTAMINATED ELEMENTS PRESENT ..

COMPOSITION POLYETHYLENE GENERATION DATA ...

NO. OF MEN RATE(LBS/YEAR)
12 2.00
50 7.30
100 7.30

RECLAMATION ACTION .. REUSE AS IS

- 100
RECLAMATION ACTION .. N/R

```
S/C SUBSYSTEM .... DISPENSARY HOUSEKEEPING
   GROUP KEY .... 1.1.3
** EQUIPMENT/EXPERIMENT NO. 2 ..... DENTAL
         S/C AREAS ..... MAINTENANCE
**** WASTE SOURCE NJ. 1 .... DENTAL
         DOCUMENT NO. ..... 1.1.3.2.1*
         REFERENCE NO. 1 .. EXPERIMENTAL PROGRAM FOR EXTENDED EARTH
                           CRBITAL MISSIONS REVISION DATED SEPTEMBE
                           R 1968, NASA OFFICE OF MANNED SPACE FLIGH
                           T.
**** WASTE ITEM NO. 1 .... TRASH HAMPER
         STATE ..... SOLID
         DENSITY ..... C.35 LPS/CU. FT.
         ATTRIBUTES ..... PLASTIC CONTAMINATED
         ELEMENTS PRESENT ..
         CCMPOSITION ..... POLYSTYRENE
         GENERATION DITA ...
                 NO. OF MEN
                                     RATE(LBS/YEAR)
                  12
                                           0.00
                  50
                                           0.00
                  100
                                           0.00
         RECLAMATION ACTION .. REUSE AS IS
***** WASTE ITEM NO. 2 .... TRASH HAMPER BAGS
         STATE ..... SOLID
        ~DENSITY ...... 0.08 LBS/CU. FT.
         ATTRIBUTES ..... PLASTIC CONTAMINATED
         ELEMENTS PRESENT ..
         COMPOSITION ..... POLYETHYLENE
         GENERATION DATA ...
                 VO. OF MEN
                                     RATE(LBS/YEAR)
                  12
                                          3.60
                   50
                                          10.95
```

10.95

ATTPIBUTES GAUZE AND BACTERICIDE CONTAMINATED

ELEMENTS PRESENT ..

CCMPOSITION CELLULOSE AND BACTERICIDE

GENERATION DATA ...

NO. DF MEN RATE(LBS/YEAR)
12 12.00
50 43.80
100 43.80

RECLAMATION ACTION ... N/R

***** WASTE ITEM NO. -4 AUTOCLAVE CLOTHS-WRAPPING INSTRUMENTS

STATE SOLID

DENSITY 6.07 LBS/CU. FT. ATTRIBUTES CLCTH CONTAMINATED

ELEMENTS PRESENT ...

COMPOSITION CELLULOSE

GENERATION DATA ...

NO. OF MEN RATE(LBS/YEAR)
12 12.00
50 36.50
100 36.50

RECLAMATION ACTION .. REUSE AS IS

**** WASTE ITEM NO. 5 ... PACKAGING MATERIAL

STATE SOLID

DENSITY C.08 LPS/CU. FT. ATTRIBUTES PLASTIC CONTAMINATED

ELEMENTS PRESENT ...

COMPOSITION POLYETHYLENE

GENERATION DATA ...

NO. OF MEN RATE(LBS/YEAR)
12 1.00
50 3.65
100 3.65

RECLAMATION ACTION .. REUSE AS IS

```
S/C SUBSYSTEM .... PERSONNEL PRCTECTION
   GROUP KEY .... 1.1.4
BASIC FUNCTION ..... SUPPORT LIFE
         FUNCTIONAL REQUIREMENT .... MAINTAIN AND MONITOR CHEW HEALTH
                                   AND SAFETY
** EQUIPMENT/EXPERIMENT NO. 1 ..... SPACE SUITS, AND PORTABLE LIFE SU
                                   PPORT SYSTEMS
         S/C AREAS ..... SERVICES AIRLOCKS
**** WASTE SOURCE NO. 1 .... SPACE SUITS AND PORTABLE LIFE SUPPORT SY
                           STEMS
         DOCUMENT NO. ..... 1.1.4.1.1*
         REFERENCE NO. 1 .. MCDONNELL DOUGLAS ASTRONAUTICS CC. MCC G
                           C634, SPACE STATION PRELIMINARY DESIGN D
                           ATA, VOLUME 1, BOOK 3, CREW SYSTEMS (JULY 1
                           970) CONTRACT NAS8-25140
         REFERENCE NO. 2 .. NORTH AMERICAN ROCKWELL CORP., SPACE DIV
                           ISION MSC-00735, SPACE STATION DESIGN SH
                           EETS, VOL.1, SECTION 4.6 AND 4.7, CONTR
                           ACT NAS9-9953
***** WASTE ITEM NO. 1 ... WATER
         STATE ..... LIGUID
         DENSITY ..... 62.40 LBS/CU. FT.
         ATTRIBUTES ..... VAPORIZED
         ELEMENTS PRESENT ..
         RETAM ..... WATER
         GENERATIC | DATA ...
                 NO. OF MEN
                                      RATE(LBS/YEAR)
                   12
                                          840.00
                   50
                                         3360.00
                  100
                                         6720.00
         RECLAMATION ACTION .. N/R
***** WASTE ITEM NJ. 2 .... CO2
         STATE ..... GAS
         DENSITY .....
                             0.00 LBS/CU. FT.
         ATTRIBUTES ..... COMBINED WITH LICH
         ELEMENTS PRESENT .. C2, C
         COMPOSITION .....
         GENERATION DATA ...
                 NJ. OF MEN
                                      RATE(LBS/YEAR)
                   12
                                          187.00
                   50
                                          749.00
```

1498.00

100

TECLAMATICA ACTION ... TPAP AND SCRUB

```
S/C SUBSYSTEM .... PERSONNEL PROJECTION
   GROUP KEY .... 1.1.4
** EPUIPMENT/EXPERIMENT NO. 1 .....SPACE SJITS AND PORTABLE LIFE SU
                                 PPORT SYSTEMS
**** WASTE SOURCE NO. 1 .... SPACE SUITS AND PORTABLE LIFE S'IPPORT SY
                          STEMS
***** WASTE ITEM AJ. 3 .... LICH
         STATE ..... SOLID
        DENSITY ..... 28.00 LBS/CU. FT.
         ATTRIBUTES ..... GRANULAR, HYDROSCOPIC, STRONG CAUSTIC
         FLEMENTS PRESENT ..
         CCMPOSITION ..... LICH
         GENERATION DATA ...
                NO. OF MEN
                                    RATE(LBS/YEAR)
                  12
                                        600.00
                  50
                                        2400.00
                  100
                                        4800.00
        RECLAMATION ACTION .. N/R
***** WASTE ITEM NO. 4 ... POLER SUPPLY (RATTERY)
         STATE ..... SCLID
         DENSITY ...... 100.00 LBS/CU. FT.
         ATTRIBUTES ..... DENSE, CCRROSIVE
         ELEMENTS PRESENT ..
         CCMPOSITION ..... UNKNOWN
         GENERATION DATA ...
                NO. OF 4EN
                                    RATE(LPS/YEAR)
                  12
                                        670.00
                  50
                                        2680.00
                 100
                                        5360.00
        RECLAMATION ACTION .. RECHARGE
```

PROVIDE CREW QUARTERS

S/C SUBSYSTEM PROVIDE FURNISHINGS GROUP KEY 1.2.1

BASIC FUNCTION SUPPORT LIFE FUNCTIONAL REQUIREMENT PROVIDE CREW QUARTERS

** EQUIPMENT/EXPERIMENT NO. 1 ROOF FURNISHINGS

S/C AREAS BED ROCM

**** WASTE SOURCE NJ. 1 ROCM FURNISHINGS

DOCUMENT NO. 1.2.1.1.1*

REFFRENCE NO. 1 .. HYGIENF SYSTEMS ANALYSIS DEBRIS GENERATI ON ANDFLOW PATTERNS, FHR #3864 DECEMBER 30.1969, FH/RAD

**** * WASTE ITEM NJ. 1 USED INFLATABLE PILLOW

STATE SOLID

DENSITY 4C.00 LBS/CU. FT. ATTRIBUTES PLASTIC, INERT, SHEET

ELEMENIS PRESENT ..

COMPOSITION TEFLON -

GENERATICY DATA ...

NO. OF 4EN RATE(LBS/YEAR)

12 16.00 50 67.00

100 133.00

RECLAMATION ACTION .. LAUNDER, WIPE CLEAN

***** WASTE ITEM NJ. 2 USED INFLATABLE MATTRESS

STATE SOLID

DENSITY 40.00 LPS/CU. FT. ATTRIBUTES PLASTIC, I NERT, SHEET

ELEMENTS PRESENT ..

CCMPOSITION TEFLON

GENERATION DATA ...

VO. OF MEN RATE(LBS/YEAR)

12 48.00 50 200.00

100 400.00

RECLAMATION ACTION .. LAUNDER, VIPE CLEAR

```
S/C SUBSYSTEM ..... PROVIDE FURNISHINGS
    '-ROUP KEY .... 1.2.1
** E | UIPMENT/EXPERIMENT NO. 1 .....ROG* FURNISPINGS
**** WASTE SOURCE NO. 1 .... ROCK FURNISHINGS
李本文学: 本家常言政家交替家本家水本水学生学者不安宗女家学习关关于教育的专术的主义的一种的主义的不识的人物 生物的 人名 不知 人名 人名
**** * WASTE ITEM NJ. 3 .... WORN FURNITURE CIVERS
          STATE ..... SOLID
         DENSITY ..... 20.00 LPS/CU. FT. -
          ATTRIBUTES .... PLASTIC, SHEET, INFRT
          FLEPENTS PRESENT ..
          CCMPOSITION ..... PBT (POLY-BENZIFIDAZILE) OR NYLWA (TULYA
                             MIDE
          CENERATION DATA ...
                  べつ。 OF MEN
                                       RATE(LBS/YEAR)
                    12
                                             12,000
                    50
                                              50.0)
                   100
                                             100.00
          PECLAMATICN ACTION .. NONF
```

** EQUIPMENT/EXPERIMENT NO. 1 CLOTHING ..

S/C AREAS BED ROGM

**** WASTE SOURCE NO. 1 CLOTHING

DOCUMENT NO. 1.2.2.1.1*

REFERENCE NO. 1 .. PRELIMINARY DEFINITION-INTERGRATED HYGIE NE SYSTEM MATERIAL PROVISIONS, FHR #3871 , JANUARY 29,1970 FH/RAC

REFFRENCE NO. 2 .. HYGIENE SYSTEMS ANALYSTS DEBRIS GENERATI CN ANDFLOW PATTERNS.FHR #3864 DECEMPER 3 0,1969 FH/RAD

REFERENCE NO. 3 .. SPACE STATION PHASE B DEFINITION DESIGN
SHEETS BY SPACE DIVISION N.A.R. MSC-0073
5 SD 70-150, VOL. 1, PAGE 002

REFERENCE NO. 4 .. HANDBOOK OF GARMENT SELECTION CRITERIA F
OR A SPACE STATION, BY AUSTIN C.MORRIS O
F E. WELSON & CO., INC., HARTFGRD, CONN.
NASA CR 102051, N70-15022 (19(9-1970)

***** WASTE ITEM ND. 1 SOILED SHIRT SHORT SLEEVE STATE SOLID DENSITY 17.00 LBS/CU. FT. ATTRIBUTES TEXTILE SHEFT, PATHOGENIC ELEMENTS PRESENT .. H, C, 0, CCMPOSITION CELLULOSE

GENERATION DATA ...

NO. OF MEN RATE(LBS/YEAR)
12 428.00
50 1782.00
100 3564.00

RECLAMATION ACTION .. LAUNDER

```
S/C SUBSYSTEM .... PROVIDE PERSONAL ARTICLES
   GROUP KEY .... 1.2.2
** EQUIPMENT/EXPERIMENT NO. I .....CLOTHING
**** WASTE SOURCE NO. 1 .... CLCTHING
**** WASTE ITEA NJ. 2 .... SOILED TROUSERS
         STATE ..... SOLID
         DENSITY .....
                          17.00 LBS/CU. FT.
         ATTRIBUTES ..... TEXTILE SHEET, PATHOGENIC
         ELEMENTS PRESENT ..
         COMPOSITION ..... CELLULOSE
         GFNERATION DATA ...
                 ND. OF MEN
                                    RATE(LBS/YEAR)
                   12
                                        609.00
                   50
                                        2541.00
                  100
                                        5082.00
         RECLAMATION ACTION .. LAUNDER
***** WASTE ITEM NO. 3 .... SOILED JACKET, LIGHT WEIGHT
         STATE ..... SOLID
         DENSITY ..... 19.00 LBS/CU. FT.
         ATTRIBUTES ...... TEXTILE SHEET, PATHOGENIC
         ELEMENTS PRESENT ..
         CCMPDSITION ..... CELLULOSE
         GENERATION DATA ...
                 NO. OF MEN
                                    RATE(LBS/YEAR)
                  12
                                          8.00
                   50
                                          34.00
                                         68.00
                  100
         RECLAMATION ACTION .. LAUNDER
****** WASTE ITEM NO. 4 .... SOILED UNDERSHORTS
         STATE ..... SOLID
         DENSITY ..... 18.00 LBS/CU. FT.
         ATTRIBUTES ..... TEXTILE SHEFT, PATHOGENIC
         ELEMENTS PRESENT ..
         CCMPOSITION ..... CELLULOSE
         GENERATION DATA ...
                 NO. OF MEN
                                    RATE(LBS/YEAR)
                   12
                                         440,00
                   50
                                        1836.00
                                        3672.00
                  100
         RECLAMATION ACTION .. LAUNDER
```

```
S/C 3UBSYSTEM .... PROVIDE PERSONAL ARTICLES
   GROUP KEY .... 1.2.2
** EQUIPMENT/EXPERIMENT NO. 1 ......CLOTHING
**** WASTE SOURCE NO. 1 .... CLCTHING
*************************
****** WASTE ITFM NO. 5 .... SOILED UNDERSHIRTS
         STATE ..... SOLID
         DENSITY ..... 18.00 LBS/CU. FT.
         ATTRIBUTES ..... TEXTILE SHEET, PATHOGENIC
         ELEMENTS PRESENT ..
         COMPOSITION ..... CELLULOSE
         GENERATION DATA ...
                 NO. OF MEN
                                      RATE(LBS/YEAR)
                                          440.00
                   12
                                          1836.00
                   50
                                          3672.00
                   100
         RECLAMATION ACTION .. LAUNDER
***** WASTE ITEM NO. 6 .... SOILED SOCKS (PAIR)
         STATE ..... SOLID
         DENSITY ..... 12.00 LBS/CU. FT.
         ATTRIBUTES ..... TEXTILE SHEET, PATHOGENIC
         ELEMENTS PRESENT ..
         CCMPOSITION ..... CELLULOSE
         GENERATION DATA ...
                                     RATE(LBS/YEAR)
                 NO. OF MEN
                                          103.00
                   12
                                           432.00
                    50
                                           864.00
                   100
         RECLAMATION ACTION .. LAUNDER
***** WASTE ITEM NO. 7 .... SOILED SHOES (PAIR)
         STATE ..... SOLID
         DENSITY ..... 65.00 LBS/CU. FT.
         ATTRIBUTES ...... PLASTIC, INERT, SHEET
         ELEMENTS PRESENT ..
         CCMPOSITION ..... FLCUREL SOAKED DOESKIN
         CENERATION DATA ...
                                       RATE(LBS/YEAR)
                  NO. OF MEN
                                            7.00
                    12
                                            28.00
                    50
                                            56.00
                   100
```

RECLAMATION ACTION .. CLEAN WITH SOLVENTS

PAGE 24 11/30/70 RUN NO. ** 2 ** \ S/C SUBSYSTEM PROVIDE PERSONAL ARTICLES GROUP KEY 1.2.2 ** EQUIPMENT/EXPERIMENT NO. 2 BED LINENS S/C AREAS BED ROOM **** WASTE SOURCE NJ. I ... BED LINENS DOCUMENT NJ. 1.2.2.2.1* REFERENCE NO. 1 .. SPACE STATION PHASE B DEFINITION DESIGN SHEETS BY SPACE DIVISIGN N.A.R. MSC-0073 5 SD 70-150 VOL. 1, PAGES 006. REFERENCE NU. 2 .. HYCIENE SYSTEMS ANALYSIS DEBRIS CENERATI ON ANDFLOW PATTERNS, FHR 3864 DECEMBER 3 0,1969, FH/RAD REFERENCE ND. 3 .. PRELIMINARY DEFINITION-INTEGRATED HYGIEN E SYSTEM MATERIAL PROVISIONS, FHR #3871, FE3RUARY 2,1970, FH/RAD. *** * * WASTE ITEM AU. 1 ... SHFETS SOILED STATE SOLID DENSITY 25.00 LBS/CU. FT. ATTRIBUTES FABRIC, SHEET, ORGANIC SOIL ELEMENTS PRESENT .. COMPOSITION CELLULOSE GENERATION DATA ... RATE(LBS/YEAR) NO. OF MEN 1.2 320.00 1332.00 50 2664.00 100 RECLAMATION ACTION .. LAUNDER **** ** WASTE ITEM NO. 2 ... BLANKET STATE SCLID DENSITY 5.00 LBS/CU. FT. ATTRIBUTES FABRIC, SHEET, ORGANIC SCIL ELEMENTS PRESENT .. CCMPDSITIGN CELLULOSE GENERATION DATA ...

NO. OF MEN RATE(LBS/YEAR)

12 24.00

50 100.00

100 200.00

RECLAMATION ACTION .. DRY CLEAN OR LAUNDER

```
S/C SUBSYSTEM .... PROVIDE PERSONAL ARTICLES
   GROUP KEY .... 1.2.2
** EQUIPMENT/EXPERIMENT NO. 2 .....BED LINENS
**** WASTE SOURCE NO. 1 .... BFD LINFNS
**** WASTE ITEM NO. 3 .... PILLOW CASES
        STATE ..... SOLID
        DENSITY ..... 25.00 LBS/CU. FT.
        ATTRIBUTES ...... FABRIC, SHEET, ORGANIC SOIL
        ELEMENTS PRESENT ..
        COMPOSITION ..... CELLULOSE
        GENERATION DATA ...
                NO. OF MEN
                                   RATE(LBS/YEAR)
                 12
                                        73.20
                  50
                                       305,00
                 100
                                       610.00
        RECLAMATION ACTION .. LAUNDER
**** WASTE ITEM NO. 4 .... MATTRESS COVERS
        STATE ..... SOLID
        DENSITY ..... 5.00 LBS/CU. FT.
        ATTRIBUTES ..... FABRIC, SHEET
        ELEMENTS PRESENT ..
        COMPOSITION ..... CELLULOSE
        GENERATION DATA ...
                NO. OF MEN
                                   RATE(LBS/YEAR)
                                        17.00
                  12
                  50
                                        70.00
                 100
                                       140.00
        .. NCITDA NOITAMALDER
```

** EQUIPMENT/EXPERIMENT NO. 3 LIMITED PERSONAL GROOMING FACILI

TY

S.C. AREAS.

S/C AREAS BED ROOM

**** WASTE SOURCE NO. 1 LIMITED PERSONAL GROCMING FACILITY

DOCUMENT NO. 1.2.2.3.1*

REFFRENCE NO. 1 .. VOL. 1-PRELIMINARY DESIGN REPORT (SPACE STATION HYGIENE, WASTE MANAGEMENT, FOOD S LBSYSTEMS). FHR #3900 JUNE 1,1970 FAIRCH ILD HILLER/RAD.

REFERENCE NO. 2 .. DESIGN SHEETS (HYG1ENE AND FOOD MANAGEME NT). FOR MOAC. FHR #3902 JUNE 5,1970 FH/ RAD.

REFERENCE NO. 3 .. PRELIMINARY DEFINITION-INTEGRATED HYGIEN E SYSTEM MATERIAL PROVISIONS. FHR 43871 JAN. 29,1970 FH/RAD.

REFERENCE NO. 4 .. HYGIENE SYSTEMS ANALYSIS DEBRIS GENEPATI CN ANDFLOW PATTERNS. FHR #3364 DEC. 20,1 969 FH/RAC.

*** *** WASTE ITEM NO. 1 ABSORBENT WIPES

STATE SOLID

DENSITY 7.00 LRS/CU. FT.

ATTRIBUTES PAPER, PATHOGENIC, SHEET

ELEMENTS PRESENT .. H, C, O COMPOSITION CELLULOSE

GENERATION DATA ...

N.). OF MEN PATE(LBS/YEAR)
12 38.60
50 160.80
100 321.60

RECLAMATION ACTION .. CLEAN, DRY & DISINFECT

```
S/C JURSYSTEM .... REST AND RELAXATION PROVISIONS
    GROUP KEY ..... 1.2.3
古不安计(广东安徽、安安州水区农业安全区安全安全公司 水水水水水片 安水省 化合物 计双型计划不可加水水水 化合物化化合物 医克格尔氏 计分类形式 化
         BASIC FUNCTION ..... SUPPORT LIFE
         FUNCTIONAL REQJIRFMENT ... PROVIDE CREW QUARTERS
** EJUIPMENT/EXPERIMENT NO. 1 ..... INDIVIDUAL CREW RECREATION
          S/C AREAS ..... RECREATION
                             STUDY/LIBRARY
ネャネ
   WASTE SOURCE NO. 1 ... INDIVIDUAL CREW RECREATION
          CGCUMENT VO. ..... 1.2.3.1.1*
         REFERENCE NO. 1 .. HYGIENE SYSTEMS ANALYSIS DEBRIS GENERATI
                             CN AND FLCW PATTERNS-FHR 3864 DECEMBER 3
                             0,1969-FH/RAD
***** WASTE ITEM NO. 1 .... DEPRIS(PAPER)
          STATE ..... SOLID
         CFNSITY ..... 2C.00 LBS/CU. FT.
          ATTRIBUTES ..... PAPER, SHEET INERT
         ELEMENTS PRESENT .. C-H-N
         COMPOSITION .....
          GENERATIEN DATA ...
                  NO. OF HEN
                                         RATE(LBS/YEAR)
                    12
                                             20.00
                    50
                                             85.00
                                             175.00
                   100
         RECLAMATION ACTION .. REPROCESS
**** WASTE ITE! NO. 2 .... BOCKS(100 PERCENT READ)
          STATE ..... SOLID
         DENSITY ..... 50.00 LBS/CU. FT.
          ATTRIBUTES ..... PAPER SHEET INERT
          ELEVENTS PRESENT .. C-H-N
          COMPOSITION ..... CELLULOSE
          GENERATION DATA ...
                  NO. OF MEN
                                         RATE(LBS/YEAR)
                    12
                                             52.00
                    50
                                             52.00
                                              52.00
         RECLAMATION ACTION .. REPROCESS
```

```
S/C SUBSYSTEM .... REST AND RELAXATION PROVISIONS
    GROUP KEY ..... 1.2.3
** EQUIPMENT/EXPERIMENT NO. 1 .....INDIVIDUAL CREW RECFFATION
**** WASTE SOURCE NO. 1 .... INDIVIDUAL CREW RECREATION
本本者是言言。李帝帝的是李帝宗本本帝帝的主义。李本帝本者,为史本帝者。5岁以父帝帝太帝也为代史之外的第一大大帝也,为此以帝也自己,为此他代表也也也
***** WASTE ITEM NO. 3 ... MAGNETIC TAPES CASSETTES
         STATE ..... SOLID
         DENSITY ..... 8G.00 LBS/Cy. FT.
         ATTRIBUTES ..... PLASTIC SHEET, INFRT
         ELEMENTS PRESENT .. FE
         COMPOSITION ..... MYLAR _
         GENERATION DATA ...
                  NO. OF MEN
                                        RATE(LBS/YEAR)
                    12
                                              00.8
                    50
                                              00.8
                   100
                                              00.8
         RECLAMATION ACTION .. FRASE AND RERECORD
*** WASTE ITEM NO. 4 .... VIEWED MICRO FILMS
         STATE ..... SOLID
         DENSITY ..... 30.00 LRS/CU. FT.
         ATTRIBUTES ..... PLASTIC SHEET, INERT
         ELEMENIS PRESENT ..
         COMPOSITIE! ..... ACETATE
         GENERATION DATA ...
                  NO. OF MEN
                                        RATE(LBS/YEAR)
                    12
                                              5.00
                    50
                                              5.00
                   100
                                              5.00
         RECLAMATION ACTION .. REPROCESS
```

PROVIDE CREW FOOD AND DRINK

```
S/C SUBSYSTEM .... FOOD STORAGE SYSTEM
   GROUP KEY ..... 1.3.1
MASIC FUNCTION ...... SUPPORT LIFE
         FUNCTIONAL REQUIREMENT .... PROVIDE CPEW MEALS
** EQUIPMENT/EXPERIMENT NO. 1 ..... PERISHABLE FOOD STORAGE
         S/C AREAS ..... STERAGE
                           KITCHEN

✓· ** WASTE SOURCE NO. 1 .... PERISHABLE FOOD STORAGE - MECHANICAL

         DOCUMENT AJ. ..... 1.3.1.1.1
         REFERENCE NO. 1 .. FAIRCHILD HILLER STUDY - FHR 3885. FOCO
                           MANAGEMENT SUBSYSTEM - SPACE STATION. 2
                           /17/70
*** AASTE ITEM NO. I .... FREON
         STATE ..... GAS
         DENSITY ..... 120.00 LBS/CU. FT.
         ATTRIBUTES ..... INERT
         ELFMENTS PRESENT ..
         CUMPOSITION ..... FREON
         GENERATION DATA ...
                 NJ. OF MEN
                                     RATE(LBS/YEAR)
                   12
                                          10.00
                   50
                                          42.00
                  100
                                          84.00
         RECLAMATION ACTION .. N/A
** AL X WASTE ITEM NO. 2 .... LICHT BULBS
         STATE ..... SGLID
         DENSITY ..... 8.00 LRS/CU. FT.
         ATTRIBUTES ..... FRAGILE, SHARP, PIECES
         ELEMENTS PRESENT ..
         COMPOSITION ..... GLASS, TUNGSTEN, STEEL
         GENERATION DATA ...
                 YO. OF MEN
                                     RATE(LBS/YEAR)
                   12
                                           0.15
                   50
                                           0.61
                  100
                                           1.21
         RECLAMATION ACTION .. N/A
```

```
S/C SUBSYSTEM .... FOOD STORAGE SYSTEM
   GROUP KEY .... 1.3.1
** EJUIPMENT/EXPERIMENT NO. 1 .....PERISHABLE FCOD STORAGE
*** & WASTE SOURCE NO. I .... PERISHABLE FOOD STORAGE - MECHANICAL
*** *** WASTE ITEM NO. 3 .... SPENT PARTS
         STATE ..... SCLID
         DENSITY ...... 120.00 LBS/CU. FT.
         ATTRIBUTES ..... DEASE, SMALL, METAL, PLASTIC
         ELEMENTS PRESENT .. FE, CU, AL
         COMPOSITION ..... TEFLON
         GENERATION DATA ...
                 VO. OF MEN
                               RATE(LBS/YEAP)
                   12
                                          4.00
                   50
                                           8.00
                                          16.00
                  100
         RECLAMATION ACTION ..
**** ** WASTE ITEM NO. 4 .... WATER
         STATE ..... LICUID
         DENSITY ..... 64.00 LRS/CV. FT.
         ATTRIBUTES .... FREST
         ELEMENTS PRESENT ..
         COMPOSITION ..... WATER
         GENERATION DATA ...
                 NO. OF MEN
                                     RATE(LBS/YEAR)
                   12
                                          41.00
                   50
                                         170.00
                  100
                                         340.00
         RECLAMATION ACTION .. CONDENSE & RECOVER
**** WASTE ITEM NO. 5 .... FOOD IN PKG.
         STATE ..... SOLID
         DENSITY ..... 56.00 LBS/(U. Fl.
         ATTRIBUTES ..... ORGANIC, SHEET, PLASTIC, METAL
         ELEMENTS PRESENT .. ALL INUM
         COMPOSITION ..... POLYETHYLENE
         GENERATION DATA ...
                 VO. OF MEN
                                     RATE(LBS/YEAR)
                   12
                                           7.80
                                          32.60
                   50
                                          65.30
                  100
         RECLAMATION .. NONE
```

```
S/C SURSYSTEM .... FOOD STORAGE SYSTEM
    GROUP KEY .... 1.3.1
** EQUIPMENT/EXPERIMENT NO. ) .....PERISHABLE FOOD STORAGE
**** WASTE SOURCE NJ. 2 .... PERISHABLE FOOD STORAGE - THERMOELECTRI
         DOCUMENT NJ. ..... 1.3.1.1.2
         REFERENCE NO. 1 .. FAIRCHILD HILLER STUDY - FHR 3885. FOOD
                           MANAGEMENT SUBSYSTEM - SPACE STATION. :
                           /17/70
**** WASTE ITEM NO. 1 .... LIGHT BULBS
         STATE ..... SOLID
         DENSITY .....
                           8.00 LBS/CU. FT.
         ATTRIBUTES ..... FRAGILE, SHARP, PIECES
         ELEMENTS PRESENT ..
         COMPOSITION ..... BOROSILLICATE, TUNGSTEN, STEEL
         GENERATION DATA ...
                 NO. OF MEN
                                      RATE(LBS/YEAR)
                   12
                                           0.15
                   50
                                           0.61
                  100
                                           1.21
         RECLAMATION ACTION .. PULVERIZE
**** WASTE ITEM NO. 2 .... WATER
         STATE ..... LIQUID
         DENSITY ..... 64.00 LBS/CU. FT.
         ATTRIBUTES ..... FREST
         ELEMENTS PRESENT ..
       - COMPOSITION ..... WATER
         GENERATION DATA ...
                 NO. OF MEN
                                     RATE(LBS/YEAR)
                   12
                                           41.00
                   50
                                          170.00
                                          340.00
         RECLAMATION ACTION .. CONDENSE & RECOVER
**** WASTE ITEM NO. 3 .... FOCD IN PKG. -
         STATE ...... SOLID
         DENSITY ..... 56.00 LBS/CU. FT.
         ATTRIBUTES ..... ORGANIC, PLASTIC, SHEET, METAL
         ELEMENTS PRESENT .. ALLMINUM
         COMPOSITION ..... POLYETHYLENE,
         GENERATION DATA ...
                 NO. OF MEN
                                      RATE(LBS/YEAR)
                   12
                                           7.80
                   50
                                           32.60
                  100
                                           65.30
         RECLAMATION ACTION .. NONE
```

```
S/C SUBSYSTEM .... FOOD STORAGE SYSTEM
   GROUP KEY .... 1.3.1
** EQUIPMENT/EXPERIMENT NO. 1 ..... PERISHABLE FCCD STORAGE
*** WASTE SOURCE NO. 3 .... PERISHABLE FOOD STORAGE - SPACE RADIATOR
         POCUMENT NO. ..... 1.3.1.1.3
         REFERENCE NO. 1 .. FAIRCHILD HILLER STUDY - FHR 3885. FOOD
                           MANAGEMENT SUBSYSTEM - SPACE STATICA.
                           /17/70
**** WASTE ITEM NO. 1 .... LIGHT BULBS
         STATE ..... SOLID
         DENSITY ..... 8.00 LBS/CU. FT.
         ATTRIBUTES ..... GLASS, FRAGILE, SHARP, PIECES
         ELEMENTS PRESENT ..
         CO POSITION ..... BOROSILICATE, TUNGSTEN, STEEL
         GENERATION DATA ...
                 NO. TOF HEN
                                      RATE(LBS/YEAR)
                   12
                                           0.15
                   50
                                           0.61
                  100
                                           1.21
         RECLAMATION ACTION .. PULVERIZE
RETAR .... 2 ... NETE STEAM *****
         STATE .... LIQUID
         DENSITY ..... 64.00 LBS/CJ. FT.
         ATTRIBUTES ..... FRCST
         ELEMENTS PRESENT ..
         COMPOSITION ..... WATER
         GENFRATION DATA ...
                 NO. DF MEN
                                     RATE(LBS/YEAR)
                   12
                                          41.00
                   50
                                         170.00
                  100
                                         340.00
         RECLAMATION ACTION .. CONDENSE & RECOVER
***** WASTE ITEM NO. 3 .... FOCD IN PKG.
         STATE ..... SOLID
         DENSITY ..... 56.00 LBS/(U. FT.
         ATTRIBUTES ..... GREANIC, PLASTIC, SHEET, METAL
         FLEYENTS PRESENT .. ALUMINUM
         COMPOSITION ..... POLYETHYLENE
         GENERATION DATA ...
                 NO. OF MEN
                                      RATE(LBS/YEAR)
                   12
                                           7.80
                   50
                                          32.60
                  100
                                          65.30
         RECLAMATION ACTION ..
```

```
S/C SUBSYSTEM .... FOOD STORAGE SYSTEM
   GROUP KEY .... 1.3.1
************************
** EQUIPMENT/EXPERIMENT NO. 2 ..... STABLE FOOD STORAGE
         S/C AREAS ..... STCRAGE
                            KITCHEN
**** WASTE SOURCE NO. 1 .... STABLE FCOD STORAGE
         DOCUMENT NO. ..... 1.3.1.2.1*
         REFERENCE NO. 1 .. FAIRCHILD HILLER STUDY - FHR 3885. FOOD
                            MANAGEMENT SUBSYSTEMS - SPACE STATION.
                            2/17/70
****** WASTE ITEM NO. 1 .... FOCD IN PKG.
         STATE ..... SOLID
         DENSITY ..... 41.60 LBS/CU. FT.
         ATTRIBUTES ..... ORGANIC, PLASTIC, SHEET
         ELEMENTS PRESENT ...
         COMPOSITION ..... FOGD, POLYETHYLENE
         GENERATION DATA ...
                 NO. OF MEN
                                       RATE(LBS/YEAR)
                                            8.40
                   12
                                            34.90
                   50
                                            69,80
                   100
         RECLAMATION ACTION ..
**** WASTE ITEN NO. 2 .... LIGHT BULBS
         STATE ..... SOLID
         DENSITY .....
                              8.00 LBS/CU. FT.
         ATTRIBUTES ..... GLASS, FRAGILE, SHARP, PIECES
         ELEMENTS PRESENT ...
         COMPOSITION ..... BOROSILICATES, TUNGSTEN, STEFL
         GENERATION DATA ...
                  NO. OF MEN
                                       RATE(LBS/YEAR)
                                             0.15
                    12
                                             0.61
                    50
                                             1.21
                   100
```

RECLAMATION ACTION .. PULVERIZE

```
S/C SUBSYSTEM .... FOOD AND FOOD PREPARATION
    GROUP KEY ..... 1.3.2
BASIC FUNCTION ...... SUPPORT LIFE
         FUNCTIONAL REQUIREMENT .... PROVIDE CREW MEALS
** EJUIPMENT/EXPERIMENT NO. 1 ..... FOOD RECONSIIJUTION
         S/C AREAS ..... KITCHEN
                           SNACK BAR
**** WASTE SOURCE NO. 1 .... FCCD RECONSTITUTION~REHYDRATICN
         DOCUMENT NO. ..... 1.3.2.1.1
         REFERENCE NO. 1 .. FAIRCHILD HILLER STUDY FHR 3895.FLOD IAN
                           AGEMENT SUBSYSTEM-SPACE STATION, 17 FEBRU
                           ARY 1970.
***** WASTE ITEM NO. 1 .... FOCD IN PACKAGE .5 PERCENT
         STATE ..... SOLID
         DENSITY ..... 56.00 LBS/CU. FT.
         ATTRIBUTES ..... ORGANIC AND PLASTIC SHEET
         ELFMENTS PRESENT ..
         COMPOSITION ..... FOCD, POLYETHYLENE
         GENERATICA DATA ...
                 NO. OF MEN
                                      PATE(LBS/YEAR)
                   1.2
                                          45.50
                   50
                                         188.00
                  100
                                          375.00
         RECLAMATION ACTION .. NONE
****** WASTE ITEM NO. 2 .... WATER SPILLED AND NCT DRUNK 10 PERCENT
         STATE ..... LIQUID
         DENSITY ...... 62.00 LBS/CU. FT.
         ATTRIBUTES .... WATER
         ELEMENTS PRESENT ...
         COMPOSITION ..... WATER
         GENERATION DATA ...
                                     RATE(LBS/YEAR)
                 NO. OF MEN
                   12
                                        1007.00
                   50
                                         4200.00
                  100
                                        8400.00
```

RECLAMATION ACTION .. RECYCLE

RECLAMATION ACTION .. N/R

```
S/C SUBSYSTEM .... FOOD AND FOCD PREPARATION
   GROUP KEY ..... 1.3.2
** EQUIPMENT/EXPERIMENT NO. 1 .....FOOD RECONSTITUTION
**** WASTE SOURCE NO. 2 .... FCCD RECONSTITUTION-HEATING
         DOCUMENT NO. ..... 1.3.2.1.2
**** * WASTE ITEM NO. 1 .... SPCILED FOOD IN PKG.
         STATE ..... SCLID
         DENSITY ..... 56.00 LBS/CU. FT.
         ATTRIBUTES ..... FOGD
         ELEMENTS PRESENT ..
         COMPOSITION ..... CRGANIC PLASTIC
         GENERATION DATA ...
                 ND. OF MEN
                                     RATE(LBS/YEAR)
                  12
                                         136.50
                  50
                                         570.00
                  100
                                        1140.00
         RECLAMATION -ACTION .. N/R
**** WASTE ITEM AD. 2 .... MAGNITRON TUBE
         STATE ..... SOLID
         DENSITY ........ 100.00 LBS/CU. FT.
         ATTRIBUTES ...... GLASS ENVELOPE INTACT
         ELEMENTS PRESENT .. FE , CU, NI , W
         COMPOSITION ..... BORASILICATES
         GENERATION DATA ...
                 NO. OF MEN
                                     RATE(LBS/YEAR)
                  12
                                           2.10
                  50
                                           4.20
                                           7.00
                  100
```

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RUN NO. ** 2 **
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```
S/C SUBSYSTEM .... FOOD AND FOCD PREPARATION
   GROUP KEY ..... 1.3.2
** EQUIPMENT/EXPERIMENT NO. 2 ..... MEAL ASSEMBLY
        S/C AREAS ..... KITCHEN
**** WASTE SOURCE NO. 1 .... MEAL ASSEMBLY
         DOCUMENT NO. ..... 1.3.2.2.1*
**** * WASTE ITE1 NO. 1 .... PACKAGING
         STATE ..... SCLID
         DENSITY ..... 100.00 LRS/CU. FT.
         ATTRIBUTES .... CLETH
         ELEMENTS PRESENT ..
        COMPOSITION ..... COTTON
         GENERATION DATA ...
                                     RATE(LBS/YEAR)
                 NO. OF MEN
                  12
                                          18.00
                   50
                                          77.00
                  100
                                         165.00
         RECLAMATION ACTION .. REWEAVE
*** WASTE ITEM NO. 2 .... ATTACHED FOOD .5 PERCENT OVERALL
         STATE ..... SOLID
         DENSITY ..... C.OO LBS/CU. FT.
         ATTRIBUTES ..... ORGANIC, SEMI-LIQUID
         ELEMENTS PRESENT ..
         COMPOSITION ..... FOED
         GENERATION DATA ...
                 NO. OF MEN
                                    RATE(LBS/YEAR)
                   12
                                          14.50
                   50
                                          61.00
                  100
                                         122,40
         RECLAMATION ACTION .. N/R
**** WASTE ITEM NO. 3 .... WIPES(TOWEL)4/DAY/12 MAN CREW 10% WASTE
         STATE .....
                            C.OO LBS/CU. FT.
         DENSITY .....
         ATTRIBUTES ......
         ELEMENTS PRESENT ..
         COMPOSITION .....
         GENERATION DATA ...
                                    RATE(LBS/YEAR)
                 NO. OF MEN
                                           0.00
                   12
                   50
                                           0.00
                                           0.00
                  1.00
         RECLAMATION ACTION ..
```

```
S/C SUBSYSTEM .... FOOD AND FOCD PREPARATION
   GROUP KEY ..... 1.3.2
** EQUIPMENT/EXPERIMENT NO. 2 .....MEAL ASSEMBLY
**** WASTE SOURCE NJ. 1 .... MEAL ASSEMBLY
**** WASTE ITEM NO. 4 .... FLEX. DRINKING DEVICE TIPS
        STATE ..... SOLID
        DENSITY ..... 20.00 LBS/CU. FT.
        ATTRIBUTES ..... FLEX.
        ELEMENTS PRESENT ..
        CCMPOSITIC V ..... HYPALON RUBBER
        GENERATION DATA ...
                                    RATE(LBS/YEAR)
                NO. OF MEN
                                          0.37
                  12
                                          1.56
                  50
                                          3.12
                 100
        RECLAMATION ACTION .. WASH
**** WASTE ITEM NO. 5 .... SPILLED FOOD 3 PERCENT
         STATE ..... SOLID
         DENSITY ..... 56.00 LBS/CU. FT.
         ATTRIBUTES ..... ORGANIC, SEMI-LIQUID
         ELEMENTS PRESENT ..
         COMPOSITION ..... FOCD
         GENERATION DATA ...
                                    RATE(LBS/YEAR)
                NO. OF MEN
                  12
                                         87.00
                                        366.00
                  50
                                        730.00
                 100
        RECLAMATION ACTION .. N/R
```

```
S/C SUBSYSTEM .... MEAL SERVICE AND DINING
   GROUP KEY ..... 1.3.3
PASIC FUNCTION ..... SUPPOPT LIFE
         FUNCTIONAL REQUIREMENT .... PROVIDE CREW MEALS
** E'UIPYENT/EXPERIMENT NO. 1 ..... MEAL AND ACCESSORY TRANSPORT
         S/C AREAS ..... DINING AREA
1*** WASTE SOURCE NO. 1 .... MEAL AND ACCESSORY TRANSPORT
         DOCUMENT NO. ..... 1.3.3.1.1+
* ** * ** WASTE ITEM NO. 1 .... SPILLED FOOD
         STATE ..... SOLID
         DENSITY ..... 56.00 LBS/CU. FT.
         ATTRIBUTES ...... LICUID SATURATED, ORGANIC
         ELEMENTS PRESENT ..
         COMPOSITION ..... FOCD
         GENERATION DATA ...
                 NO. OF MEN
                                    PATE(LBS/YEAR)
                  12
                                         100.00
                  50
                                         460.00
                  100
                                         920.00
         RECLAMATION ACTION .. N/R
**** WASTE ITE4 NO. 2 .... DISINFECTANT SOL
         STATE ..... LIGUID
         DENSITY ..... 64.00 LBS/CU. FT.
         ATTPIBUTES' ..... CHEMICAL
         FLEFENTS PRESENT ..
         COMPOSITION ..... BAC SOLUTION
         GENERATION DATA ...
                 NO. OF MEN
                                     RATE(LBS/YEAR)
                  12
                                          52.00
                  50
                                         220.00
                  100
                                         440.00
```

RECLAMATION ACTION .. N/R

S/C SUBSYSTEM MEAL SERVICE AND DINING JROUP KEY 1.3.3

**** ** WASTE ITEM NO. 3 PACKAGE FOR DISINFECTANT

STATE SOLID

DENSITY 57.00 LBS/CU. FT.

ATTRIBUTES PLASTIC, MOLDED CONTAINER

ELEMENTS PRESENT ..

COMPOSITION POLYETHYLENE

GENERATION DATA ...

NO. OF MEN RATE(LBS/YEAR)

12 1.75 50 7.00 100 14.00

RECLAMATION ACTION .. N/R

```
S/C SUBSYSTEM .... MEAL SERVICE AND DINING
   GROUP KEY .... 1.3.3
** FQUIPMENT/EXPERIMENT NO. 2 ..... DINING
         S/C AREAS ..... DINING AREA
                           SNACK BAR
*** WASTE SOURCE NO. 1 .... DINING
         DOCUMENT \0. ..... 1.3.3.2.1* .
**** WASTE ITEM NO. 1 ... UNEATEN FOOD
         STATE ..... SCLID
         DENSITY ..... 56.00 LBS/CU. FT.
         ATTRIBUTES ..... CRGANIC
         ELEMENTS PRESENT ..
         COMPOSITION ..... FOCD
         GENERATION DATA ...
                 NO. OF YEN
                                     RATE(LBS/YEAR)
                   12
                                        2780.00
                   50
                                        11600 + 00
                                        23200.00
                  100
         RECLAMATION ACTION ...
*** * * * WASTE ITEM NO. 2 .... NAPKINS (LINEN)
         STATE ..... SCLID
         DENSITY ..... 7C.00 LBS/CU. FT.
         ATTRIBUTES ..... LINEN, SOILED, TORN
         ELEMENTS PRESENT ..
         COMPOSITION .... FIERE-ACETATE
        -GENERATION DATA ...
                 NO. OF MEN
                                      RATE(LBS/YEAR)
                   12
                                          42.00
                   50
                                         175.00
                  100
                                         350.00
         RECLAMATION ACTION .. WASH, REWEAVE
***** WASTE ITEM NO. 3 .... SPILLED FOOD
         STATE ..... SOLID
         DENSITY ..... 56.00 LBS/CU. FT.
         ATTRIBUTES ..... GRGANIC
         ELEMENTS PRESENT ..
         COMPOSITION ..... FOCD
         GENERATION DATA ...
                 ND. OF YEN
                                      RATE(LBS/YEAR)
                   12
                                         100.00
                   50
                                          460.00
                  100
                                          920.00
         RECLAMATION ACTION .. N/R
```

```
S/C SUBSYSTEM .... HOUSEKEEPING
     GROUP- KEY .... 1.3.4
 **********************************
          BASIC FUNCTION ...... SUPPORT LIFE
          FUNCTIONAL REQUIREMENT .... PROVIDE CREW MEALS
 ** EQUIPMENT/EXPERIMENT NO. 1 ..... DEBRIS COLLECTION
          S/C AREAS ..... KITCHEN
                             DINING AREA
                             SNACK BAR
 **** WASTE SOURCE NO. 1 .... DEBRIS CONTROL-MECHANICAL
          DOCUMENT NO. ..... 1.3.4.1.1
, **** WASTE ITEM NO. 1 .... FILTER UNIT, CLOGGED
           STATE ..... SDLID
           DENSITY ...... 5.00 LBS/CU. FT.
           ATTRIBUTES ..... ORGANIC DEBRIS, SHARP
           ELEMENTS PRESENT .. ALUMIN.
           COMPOSITION ..... TEFLCN
           GENERATION DATA ...
                                       RATE(LBS/YEAR)
                   NO. OF MEN
                     12
                                              2.60
                                             10.80
                     50
                                             21.60
                    100
           RECLAMATION ACTION .. REVERSE FLUSH
 * *** WASTE ITEM NO. 2 .... DERRIS PKG. FILLED WITH DEBRIS
           STATE ..... SOLID
           DENSITY ..... 50.00 LBS/CU. FT.
           ATTRIBUTES ..... FLEX CONTAINER FILLED
           ELEMENTS PRESENT ..
           COMPOSITION ..... POLYETHYLENE
           GENERATION DATA ...
```

NO. OF MEN

12

50

100
RECLAMATION ACTION ...

RATE(LBS/YEAR)

10.90

43.70

87.40

```
S/C SUBSYSTEM .... HOUSEKEEPING
   SROUP KEY ..... 1.3.4
** EQUIPMENT/EXPERIMENT NO. 1 .....DEBRIS COLLECTION
*** WASTE SOURCE NO. 1 .... DEBRIS CONTROL-MECHANICAL
***** WASTE ITEM NJ. 3 .... PACKAGE TIE, REUSABLE
         STATE ..... SCLID
         DENSITY ..... 26.00 LBS/CU. FT.
         ATTRIBUTES ..... PLASTIC RIBBON
         ELEMENTS PRESENT ..
         CCMPOSITION ..... TEFLON
         GENERATION DATA ...
                 NO. OF MEN
                                      RATE(LBS/YEAR)
                   12
                                            2.55
                   50
                                            9.50
                  100
                                           19.00
         RECLAMATION ACTION .. REMOVE FROM DEBRIS PKE
፟፠ኡ፟፟፟፟፟፟፟፟፟፟፟፟ጙ፞፠ WASTE ITEM NO. 4 .... SCRAPER, WORN
         STATE ..... SOLID
         DENSITY ...... 69.00 LBS/CU. FT.
         ATTRIBUTES ..... PLASTIC
         ELEMENTS PRESENT ..
         COMPOSITION ..... HYPALON RUBBER
         GENERATION DATA ...
                 NO. OF MEN
                                      RATE(LBS/YEAR)
                   12
                                            0.40
                                            0.80
                   50
                  100
                                            1.60
         RECLAMATION ACTION ...
**** ** WASTE ITE 1 NO. 5 .... COLLECTED FOOD WASTE
         STATE ..... SOLID
         DENSITY ..... 56.00 LBS/CU. FT.
         ATTRIBUTES ..... ORGANIC
         FLEMENTS PRESENT ..
         COMPOSITION ..... FOOD
         GENERATION DATA ...
                 NO. OF MEN
                                      RATE(LBS/YEAR)
                   12
                                          100.00
                   50
                                          460.00
                                          920.00
                  100
         RECLAMATION ACTION ..
```

```
S/C SUBSYSTEM .... HOUSEKEEPING
   GROUP KEY ..... 1.3.4
** EQUIPMENT/EXPERIMENT NO. 1 .....DEBRIS COLLECTION
**** WASTE SOURCE NO. 1 .... DEBRIS CONTROL-MECHANICAL
***** WASTE ITEM NO. 6 .... VACUUM CLFANER TIPS, NORN
        STATE ..... SOLID
        DENSITY ..... 69.00 LBS/CU. FT.
        ATTRIBUTES ..... PLASTIC
        ELFMENTS PRESENT ..
        CCMPOSITION ..... RUBBER
        GENERATION DATA ...
               NO. OF MEN
                                 RATE(LBS/YEAR)
                 12
                                       0.80
                 50
                                        1.60
                100
                                        3.20
        RECLAMATION ACTION .. N/R
```

```
S/C 3U3SYSTEM .... HOUSEKEEPING
    TROUP KEY .... 1.3.4
** E )UIP "ENT/EXPERIMENT NO. 1 ......DEBRIS COLLECTION
**** AASTE SOURCE NO. 2 .... DERRIS CONTROL-MANUAL
         POCU1FAT NJ. ..... 1.3.4.1.2
**** * WASTE ITEM NO. 1 .... WIPES
         STATE ..... SOLID
         DENSITY ..... 55.00 LBS/CU. FT.
         ATTRIBUTES ..... PAPER, WET, SOILED
         ELEFENTS PRESENT ..
         COMPOSITION ..... OPCANIC
         GENERATICY DATA ...
                 YU. OF MEN
                                     RATE(LBS/YEAP)
                   12
                                           51.20
                  50
100 --
                                          235.00
                                          412.00
         RECLAMATION ACTION .. N/R
" ** * * WASTE ITEM NO. 2 .... BACS OF WASTED FOOD
         STATE ...... SOLID
         DENSITY ..... 5c.00 LBS/CU. FT.
         ATTRIBUTES .... FLEXIBLE FILLED
         ELFMENTS PRESENT ..
         CCMPOSITION ..... POLYETHYLENE FOOD WASTES
         CENERATICY DATA ...
                  NO. OF YEN
                                     * RATE(LBS/YEAR)
                   12
                                         3165.00
                   50
                                        13251.00
                   100
                                        26500.00
         RECLAMATICA ACTION .. N/R
**** * WASTE ITEN NO. 3 ... GLEVES
         STATE ..... SOLID
         DENSITY ..... 26.00 LBS/CU. FT.
         ATTRIBUTES ..... FLEXIBLE, SHEET
         FLEMENTS PRESENT ..
         CCMPCSITICN ..... POLYETHYLENE
         GENERATION DATA ...
                                      RATE(LBS/YEAD)
                  NO. OF MEN
                   1.2
                                           11.00
```

50 100

PECLAMATION ACTION .. WASH

44.00

88.00

S/C SUBSYSTEM HOUSEKEEPING GROUP KEY 1.3.4

** EQUIPMENT/EXPERIMENT NO. 1DEBRIS COLLECTION **** WASTE SOURCE NO. 2 DEBRIS CONTROL-MANUAL

**** WASTE ITEM NO. 4 SCRAPER

STATE SOLID

DENSITY 69.00 LBS/CU. FT.

ATTRIBUTES PLASTIC, ROD

ELEMENTS PRESENT ..

COMPOSITION RUBBER HYPALON

GENERATION DATA ...

NO. OF MEN RATE(LBS/YEAR)

12 0.40 50 0.80 100 1.60

RECLAMATION ACTION .. WASH

**** WASTE ITEM NO. 5 NOZZLE: VACUUM PICKUP

STATE SOLID

DENSITY 69.00 LBS/CU. FT.

ATTRIBUTES PLASTIC TUBULAR

ELEMENTS PRESENT ...

CCMPOSITION RUBBER HYPALON

GENERATION DATA ...

NO. OF MEN RATE(LBS/YEAR)

12 0.80 50 1.60 100 3.20

RECLAMATION ACTION .. WASH

```
S/C >UBSYSTEM .... HOUSEKEEPING
   GROUP KEY ..... 1.3.4
** EQUIPMENT/EXPERIMENT NO. 2 ..... UTENSIL CLEANSING
        S/C AREAS ..... KITCHEN
*** *ASTE SOURCE NJ. 1 .... UTENSIL CLEANSING
         DECLYENT NO. ..... 1.3.4.2.1*
**** * WASTE ITE' NO. 1 .... FOOD DEBRIS
         STATE ..... SOLID
         DENSITY ..... 56.00 LBS/CU. FT.
         ATTPIBUTES ..... WATER SATURATED
         ELEMENTS PRESENT ..
         COMPOSITION ..... GRGANIC
         CENERATION DATA ...
                 NO. OF MEN
                                     RATE(LBS/YEAR)
                  12
                                         278.00
                   50
                                        1160.00
                  100
                                        2320.00
         RECLAMATION ACTION .. N/P
***** WASTE ITEM N3. 2 ... DETERGENT
         STATE ..... LIGUID
         DENSITY ..... 62.00 LBS/CU. FT.
         ATTRIBUTES ...... IN SCLUTION
         ELEMENTS PRESENT ..
         CCMPOSITION ..... SULFGNATES
         GENERATION DATA ...
                 VO. OF MEN
                                     RATE(LBS/YEAR)
                   12
                                          40.50
                                       17000.00
                   50
                  100
                                         162.00
         RECLAMATION ACTION .. FILTER, BOIL
**** WASTE ITEM NO. 3 .... WATER
         STATE ..... LICUID
         DENSITY ..... C.00 LBS/CU. FT.
         ATTRIBUTES ..... SATURATED FOOD AND DETERGENT
         ELFMENTS PRESENT ..
         CCMPOSITION ..... WATER
         GENERATION DATA ...
                 \ ). OF 4EN
                                     RATE(LBS/YEAR)
                  12
                                        8520.00
                   50
                                           0.00
                  100
                                       34000.00
         RECLAMATION ACTION ..
```

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S/C SUBSYSTEM .... HOUSEKEEPING
    3ROUP KEY .... 1.3.4
፟፠፠፠፠<sup>ዹ</sup>፟ዹዹ፞ዿ፠፠፠፠፠፠፠፠፠ዹጜዹ፠፠ዹ፠፠ዹዹ፠፠፠፠ዹዹ፠ዹዹ፠፠ዹዹጜ፠፠ዹ<sup>1</sup> ዹ፠፠፠ዾ<sub></sub>ዾ፠ዹዹዹ፠፠ዹ<sub>1</sub> ጜዹ፞ጚፘጚዹ
** E JUIPMENT/EXPERIMENT NO. 3 ..... WASTE STOWAGE
          S/C AREAS ..... KITCHEN
                               DINING AREA
                               SNACK BAR
**** WASTE SOURCE NO. 1 .... WASTE STOWAGE
          DOCUMENT N7. ..... 1.3.4.3.1*
***** WASTE ITEM NO. 1 .... FILLED WASTE LINERS
          STATE ..... SCLID
          DENSITY ..... 5C.00 LBS/CU. FT.
          ATTRIBUTES ..... PLASTIC SHEET, ORGANIC
          ELEMENTS PRESENT ..
          COMPOSITION ..... TEFLON & FOOD WASTES
          GENERATION DATA ...
                    NO. OF MEN
                                           RATE(LBS/YEAR)
                      12
                                                  8.00
                      50
                                                 32.50
                     100
                                                 65.00
          RECLAMATION ACTION .. EMPTY, WASH
```

PROVIDE FOR CREW HYGIENE

```
S/C SUBSYSTEM .... HUMAN WASTE MANAGEMENT
   GROUP KEY .... 1.4.1
BASIC FUNCTION ..... SUPPORT LIFE
         FUNCTIONAL REQUIREMENT .... PROVIDE FOR CREW HYGIENF
** EQUIPMENT/FXPERIMENT NO. 1 ..... FECAL AND VCMITUS WASTE MANAGEME
         S/C AREAS ..... BATHROOM
                           DISPENSARY
**** WASTE SOURCE NO. 1 .... INTEGRATED VACUUM DRYING
         DOCUMENT NO. ..... 1.4.1.1.1
** ** WASTE ITEM NO. 1 .... FILTERS (ODOR CONTROL)
         STATE ..... SOLID
         DENSITY ..... 85.00 LBS/CU. FT.
         ATTRIBUTES ..... METALIC, GRANULAR, PATHCGENIC
         ELEPENTS PRESENT ..
         COMPOSITION ..... ACTIVATED CHARCHAL
         GENERATION DATA ...
                 NO. OF MEN
                                     RATE(LBS/YEAR)
                  12
                                          51.90
                  50
                                         216.30
                                         432.50
                  100
         RECLAMATION ACTION .. PURIFY CHARCOAL
**** WASTE ITEM NO. 2 .... FILTERS (BACTERIA CONTROL)
         STATE ..... SOLID
         DENSITY ......
                            5.00 LRS/CU. FT.
         ATTRIBUTES ..... TEFLON, SHEET, PATHCGENIC
         ELEMENTS PRESENT ...
         COMPOSITION ..... TEFLON
         GENERATION DATA ...
                 NO. OF MEN
                                     RATE(LBS/YEAR)
                   12
                                           2.60
                   50
                                          10.80
                  100
                                          21.60
         RECLAMATION ACTION .. PURIFY, CLEAN
```

```
S/C SUBSYSTEM .... HUMAN WASTE MANAGEMENT
    GROUP KEY ..... 1.4.1
** EQUIPMENT/EXPERIMENT NO. I .....FECAL AND VOMITUS WASTE PANAGEME
                                    ΝT
** '3 WASTE SOURCE NO. 1 .... INTEGRATED VACUUM DRYING
李、水水、水水、水水、水水水水水水水水水水水水水水水水水水水、 5 7 水火火火火 水水水水火 化水水水水水水水水水水水水 人名西西伊伊安安
****- * WASTE ITEM NO. 3 ... WASTE CONTAINER (FILLED)
         STATE ...... SCLID
         DENSITY ..... 64.00 LRS/CU. FT.
         ATTRIBUTES ..... PLASTIC: SHEET, PATHCGENIC, ORGANIC, BUL
                             K, SEMI-LIQUID, PAPER
         ELEMENTS PRESENT ..
         CCMPOSITION ..... TEFLON, CELLULOSE, BACTERIA, PROTEIN, H2
                             O-HCL
         GENERATION DATA ...
                  VO. OF MEN
                                         RATE(LBS/YEAR)
                    12
                                            940.00
                    50
                                            3915.00
                   100
                                            7795.00
         RECLAMATION ACTION .. N/R
**** WASTE ITEM NO. 4 .... VAPORIZED PRODUCTS
          STATE ..... GAS
         DENSITY .....
                               0.00 LBS/CU. FT.
         ATTRIBUTES ..... CCPRCSIVE
         ELFMENIS PRESENT .. N
         COMPOSITION ..... METHANE, AMMONIA, WATER
          GENERATION DATA ...
                  VO. OF IEN
                                         RATE(LBS/YEAR)
                    12
                                            1022.00
                    50
                                            4258.00
                   100
                                            8550.00
         RECLAMATION ACTION .. N/R
```

```
S/C SUBSYSTEM .... HUMAN WASTE MANAGEMENT
    GROUP KEY ..... 1.4.1
** EQUIPMENT/EXPERIMENT NO. 1 .....FECAL AND VCMITUS PASTE VANAGEME
                                  NT
**** WASTE SOURCE NO. 2 ... AUTOMATED BAG/VACUUM DRYING
         DOCUMENT NO. ..... 1.4.1.1.2
**** WASTE ITEM NO. 1 .... FILTERS (ODOR CONTPGL)
         STATE ..... SOLID
         DENSITY ..... 85.00 LBS/CU. FT.
         ATTRIBUTES ..... METALIC, GRANULAR, PATHOGENIC
         ELEMENTS PRESENT ..
         COMPOSITION ..... ACTIVATED CHAPCOAL
         GENERATION DATA ...
                 NO. OF MEN
                                      RATE(LBS/YEAR)
                                          51.90
                   12
                                          216.30
                   50
                                          432.50
                  100
         PECLAMATION ACTION .. PURIFY CHARCOAL
**** WASTE ITEM NO. 2 ... WASTE CONTAINER (FILLED)
         STATE ..... SOLID
         DENSITY ..... 64.00 LBS/CU. FT.
         ATTRIBUTES ..... PLASTIC, SHEET, PATHOGENIC, ORGANIC, BUL
                           K, SEMI-LIQUID, PAPER
         ELEMENTS PRESENT ..
         COMPOSITION ..... TEFLON, CELLULOSE, BACTERIA, PROTFIN, HC
                           L-H20, F00D
        GENERATION DATA ...
                 NO. OF MEN
                                      RATE(LBS/YEAR)
                   12
                                        1387.00
                   50
                                         5742.00
                                        11450.00
                  100
         RECLAMATION ACTION .. N/R
**** WASTE ITEM NO. 3 ... FILTERS (BACTERIAL CONTROL)
         STATE ..... SOLID
         DENSITY ..... 5.00 LBS/CU. FT.
         ATTRIBUTES ..... TEFLCN, SHEET, PATHOGENIC
         ELEMENTS PRESENT ..
         COMPOSITION ..... TEFLON
         GENERATION DATA ...
                 NT. OF MEN
                                      RATE(LBS/YEAR)
                                            2.60
                   12
                                           10.80
                   50
                  100
                                           21.60
         RECLAMATION ACTION .. PURIFY, CLEAN
```

```
S/C SUBSYSTEM .... HUMAN WASTE MANAGEMENT
   TROUP KEY .... 1.4.1
** EQUIPMENT/EXPERIMENT NO. 1 ......FECAL AND VOMITUS WASTE MANAGEME
                                  NT
**** WASTE SOURCE NO. 3 ... WET COLLECTION
         DGCUMENT NO. ..... 1.4.1.1.3
**** * WASTE ITEM NO. 1 .... FILTERS (ODOR CONTRCL)
         STATE ..... SCLID
         PENSITY ..... 85.00 LBS/CU. FT.
         ATTRIBUTES ......
         ELEMENTS PRESENT ..
         CCMPOSITICY ..... ACTIVATED CHARCOAL
         GENERATION DATA ...
                 NO. OF MEN
                                      RATE(LBS/YEAR)
                   12
                                           51.90
                  50
                                          216.30
                  100
                                          432.60
         RECLAMATION ACTION .. PURIFY FILTER ELEMENT
****** waste item NJ. 2 .... FILTERS (BACTERIAL CGNTROL)
         STATE ..... SOLID
         DENSITY ..... 5.00 LBS/CU. FT.
         ATTRIBUTES ..... TEFLON, SHFET, PATHOGENIC
         ELEMENTS PRESENT ..
         CCMPOSITION ..... TEFLON
         CENERATION DATA ...
                 NO. OF YEN
                                      RATE(LBS/YEAR)
                   12
                                            2.60
                   50
                                           10.80
                  100
                                           21.60
         RECLAMATION ACTION .. PURIFY, CLEAN
**** ~ WASTE ITEM NO. 3 ... WASTE CONTAINER (FILLED)
         STATE ..... SOLID
         DENSITY ..... 64.00 LBS/CU. FT.
         ATTRIBUTES ..... PLASTIC, SHEET, PATHOGENIC, ORCANIC, BUL
                           K, SEMI-LIQUID, PAPER
         ELEMENTS PRESENT ..
         COMPOSITION ..... TEFLON, CELLULOSE, BACTERIA, PRCTEIN, HC
                           L-H20
         GENERATION DATA ...
                 NO. OF MEN
                                      RATE(LBS/YEAR)
                   12
                                         2000.00
                   50
                                         8333.00
                  100
                                        16666.00
         PECLAMATION ACTION ..
```

S/C SUBSYSTEM HUMAN WASTE MANAGEMENT SROUP KEY 1.4.1

** EQUIPMENT/EXPERIMENT NO. 1FECAL AND VCMITUS WASTE WARAGENE

**** WASTE SCURCE NO. 3 ... WET COLLECTION

**** WASTE ITEM NJ. 4 FILTERS, FECAL AND VCMITUS COLLECTOR

STATE SCLID

DENSITY 5.00 LBS/CU. FT.

ATTRIBUTES SHEET, BULK, PATHCGENIC

ELFMENTS PRESENT ..

COMPOSITION CELLULOSE

GENERATION DATA ...

NO. OF MEN RATE(LBS/YEAR)

12 240.00 50 1000.00 100 2000.00

RECLAMATICN ACTION .. PURIFY, CLEAN

S/C SUBSYSTEM HUMAN WASTE MANAGEMENT GROUP KEY 1.4.1

** EDUIPMENT/EXPERIMENT NO. 2 URINE COLLECTION

S/C AREAS BATHROOM DISPENSARY

TAGA WASTE SOURCE NO. 1 ... URINE COLLECTION

DOCUMENT NO. 1.4.1.2.1*

**** WASTE ITEY NO. 1 FILTERS

STATE SCLID

DENSITY 85.00 LBS/CU. FT.

ATTRIBITES METALIC, GPANULAR, PATHCGENIC

ELEMENTS PRESENT ..

COMPOSITION ACTIVATED CHARCOAL

GENERATION DATA ...

NO. OF MEN RATE(LBS/YEAR)

12 25.90 50 108.20 100 216.40

RECLAMATION ACTION .. PURIFY FILTER ELEMENT

S/C SUBSYSTEM FULL BODY WASH

3ROUP KEY 1.4.2

BASIC FUNCTION SUPPORT LIFE FUNCTIONAL REQUIREMENT PROVIDE FOR CREW HYGIENE

** EQUIPMENT/EXPERIVENT NO. 1 BODY WASH /

S/C AREAS BATHROOM

**** WASTE SOURCE NO. 1 SHEWER

DOCUMENT NO. 1.4.2.1.1

REFERENCE NO. 1 .. VOL.1 PRELIMINARY DESIGN REPORT (SPACE ST ATION HYGIENE, WASTE MANAGEMENT, AND FOOD SUBSYSTEMS). FHR #3900, JUNE 1,1970 FAIRC HILD HILLER/RAD

REFERENCE NO. 2 .. DESIGN SHEETS(HYGIENE AND FOOD MANAGEMEN T) FOR MDAC. FHR #3902 JUNE 5,1970, FAIRC HILD HILLER/RAD

REFERENCE NO. 3 .. PRELIMINARY DEFINITION-INTEGRATED HYGIEN E SYSTEM MATERIALS PROVISIONS.FHR #3871. JANUARY 29,1970, FAIRCHILD HILLER/RAD

REFERENCE NO. 4 .. HYGIENE SYSTEMS ANALYSIS DEBRIS GENERATI ON AND FLOW PATTERNS. FHR #3864 DECEMBER 30,1969, FAIRCHILD HILLER/RAD

**** A WASTE ITEM NO. 1 CONTAMINATED WASH WATER

STATE LIQUID

DENSITY 62.40 LBS/CU. FT.

ATTRIBUTES WATER, ORGANIC BODY SCILS

ELEMENTS PRESENT ..

COMPOSITION WATER

GENERATION DATA ...

NO. OF MEN

50

12

100

RATE(LBS/YEAR)

37440.00

156000.00

312000.00

RECLAMATION ACTION .. PURIFICATION

```
S/C 3UBSYSTEM .... FULL BODY LASH
   JROUP KEY ..... 1.4.2
** EQUIPMENT/EXPERIMENT NO. 1 .....BODY WASH
**** WASTE SOURCE NO. 1 .... SHOWER
****' * VASTE ITEM NO. 2 .... FILTERS/TRAPS
         STATE ..... SCLID
         DENSITY ..... 20.00 LBS/CU. FT.
         ATTRIBUTES ..... PLASTIC, GRANULAR, MICROBIAL ACTIVITY
         ELEMENTS PRESENT ..
         CCMPOSITION ..... SPERKE, TEFLON
         GENERATION DATA ...
                 NO. OF MEN
                                     RATE(LBS/YEAR)
                  12
                                         156.00
                  50
                                         650.00
                  100
                                        1300.00
         RECLAMATION ACTION .. DECONTAMINATE AN CLEAN
**** WASTE ITEM NO. 3 .... TOWELS
         STATE ..... SOLID
         DFNSITY ..... 8.00 LBS/CU. FT.
         ATTRIBUTES ..... TEXTILE DAMP
         ELEMENTS PRESENT .. C-F-N
         CGMPOSITION ..... CELLULOSE -
         CENERATION DATA ...
                 NO. OF MEN
                                    RATE(LBS/YEAP)
                  12
                                        1400.00
                  50
                                        5880.00
                  100
                                       11760.00
         RECLAMATION ACTION .. LAUNDER
**** WASTE ITEM NO. 4 .... WASHCLOTHS
         STATE ..... SOLID
         DENSITY ...... 16.00 LBS/CU. FT.
         ATTRIBUTES ..... TEXTILE DAMP
         ELEMENTS PRESENT .. C-H-N
         CCMPOSITION ..... CELLULOSE
         GENERATION DATA ...
                 NO. OF MEN
                                     RATE(LBS/YEAR)
                                         150.00
                  12
                   50
                                         627.00
                  100
                                        1254.00
         RECLAMATION ACTION .. LAUNDER
```

```
S/C SUBSYSTEM .... FULL BODY WASH
    FROUP KEY .... 1.4.2
** EQUIPMENT/EXPERIMENT NO. 1 ......BODY WASH
**** WASTE SDURCE NO. 2 .... IMMERSION BATH
         DOCUMENT NO. ..... 1.4.2.1.2
         REFERENCE NO. 1 .. VOL. 1 PRELIMINARY DESIGN REPORT (SPACE S
                           TATION HYGIENE, WASTE MANAGEMENT, AND FOOD
                            SLBSYSTEMS). FHR #3900 JUNE 1,1970 FAIR
                           CHILD HILLER/RAD.
         REFERENCE NO. 2 .. DESIGN SHEETS (HYGIENE AND FOOD MANAGEMEN
                           T) FOR MDAC. FHR #3902 JUNE 5,1970. FH/R
                           AD.
         REFERENCE NO. 3 .. PRELIMINARY DEFINITION-INTEGRATED HYGIEN
                           E SYSTEM MATERIAL PRCVISIONS. FHR #3871.
                            JAN. 29,1970, FH/RAD
**** WASTE ITEM NO. 1 .... DIRTY WASH WATER
         STATE ..... LIQUID
         DENSITY ..... 62.40 LBS/(U. FT.
         ATTRIBUTES ..... WATER ORGANIC BODY SCIL
         ELEMENTS PRESENT ..
         COMPOSITION .... WATER
         GENERATION DATA ...
                 NO. OF MEN
                                     RATE(LBS/YEAR)
                  12
                                       18720.00
```

100 156000.00 RECLAMATION ACTION .. REMOVE CONTAMINANTS

78000.00

50

****** WASTÉ ITEM NJ. 2 EXHAUSTED FILTERS AND TRAPS
STATE SOLID
DENSITY 20.00 LBS/CU. FT.
ATTRIBUTES PLASTIC, SCREEN, MICRG ORGANISMS
ELEMENTS PRESENT ..
COMFOSITION GLASS/TEFLON
GENERATION DATA ...
ND. OF MEN
RATE(LBS/YEAR)
12
156.00
50
650.00
1300.00

RECLAMATION ACTION .. REMOVE CONTAMINANTS

```
S/C SUBSYSTEM .... FULL BODY WASH
    FROUP KEY .... 1.4.2
** EQUIPMENT/EXPERIMENT NO. 1 ......BODY WASH
**** WASTE SOURCE NO. 2 .... IMMERSION BATH
**** VASTE ITEM NO. 3 ... USED TOWELS
         STATE ..... SOLID
         DENSITY ..... 8.00 LPS/CU. FT. '
         ATTRIBUTES .... FABRIC DAMP
         ELEMENTS PRESENT .. C-h-N
         COMPOSITION ..... CELLULOSE
         GENERATION DATA ...
                 NO. OF MEN
                                     RATE(LBS/YEAR)
                   12
                                        821.00
                   50
                                        3422.00
                                        6843.00
                  100
         RECLAMATION ACTION .. LAUNDER
***** WASTE ITEM NJ. 4 ... USED SPONGES
         STATE ..... SOLID
         DENSITY ...... 1.20 LBS/CU. FT.
         ATTRIBUTES ..... PLASTIC INEPT PATHOGENIC
         FLEMENTS PRESENT ..
         CGMPDSITICN ..... POLYURETHANE
         GENERATION DATA ...
                 NO. OF MEN
                                     RATE(LBS/YEAF)
                   12
                                         150.00
                   50
                                         627.00
                  100
                                        1254.00
         RECLAMATION ACTION .. LAUNDER'
***** WASTE ITEM NO. 5 .... SPENT IMMERSION BATH SUIT
         STATE ..... SOLID
         DENSITY ..... 40.00 LBS/CU. FT.
         ATTRIBUTES ..... SHEET PLASTIC
         ELEMENTS PRESENT ..
         COMPOSITION ..... POLYESTER/GLASS
         GENERATION DATA ...
                 NO. OF MEN
                                      RATE(LBS/YEAR)
                   12
                                         396.00
                   50
                                        1650.00
                  100
                                        3300.00
         RECLAMATION ACTION .. NONE
```

S/C SUBSYSTEM FULL BODY WASH SROUP KEY 1.4.2

**** WASTE SOURCE NO. 3 AUTOMATED SPONGE BATH

DOCUMENT NO. 1.4.2.1.3

REFERENCE NO. 1 .. VOL.1 PRELIMINARY DESIGN REPORT(SPACE ST ATICN HYGIENE, WASTE MANAGEMENT, AND FOOD SUBSYSTEMS), FHR #3900, JUNE 1 1970, FH/RA D.

REFERENCE NO. 2 .. DESIGN SHEETS(HYGIENE AND FCGD MANAGEMEN T) FOR MDAC, FHR #3902, JUNE 5,1970, FH/R AD.

PEFERENCE NO. 3 .. PRELIMINARY DEFINITION-INTEGRATED HYGIEN E SYSTEM MATERIAL PROVISIONS, FHR #3871, JANUARY 29,1970, FH/RAD

REFERENCE NO. 4 .. HYGIENE SYSTEMS ANALYSIS DEBRIS GENERATI ON AND FLCW PATTERNS, FHR #3864, DECEMBER 30,1969, FH/RAD.

***** WASTE ITEM NO. 1 USED WASH WATER

STATE LIQUID

DENSITY 62.40 LBS/CU. FT.

ATTRIBUTES WATER, ORGANIC BODY SCIL

ELEMENTS PRESENT ..

COMPOSITION WATER

GENERATION DATA ...

NO. OF MEN RATE(LBS/YEAR)
12 2190.00
50 9125.00
100 18250.00

RECLAMATION ACTION .. DECONTAMINATE

***** WASTE ITEM NO. 2 CLCGGED PHASE SEPARATORS

STATE SOLID

DENSITY 20.00 LBS/CU. FT.

ATTRIBUTES PLASTIC SCREEN, MICRO-ORGANISMS

ELEMENTS PRESENT ..

CCMPOSITION GLASS/TEFLON

GENERATION DATA ...

NO. OF MEN RATE(LBS/YEAR)
12 57.60
50 240.00
100 - 480.00

RECLAMATION ACTION .. DECONTAGINATE

```
S/C SUBSYSTEM .... FULL BODY WASH
    JROUP KEY .... 1.4.2
** EGUIPMENT/EXPERIMENT NG. 1 .....BODY WASH
**** WASTE SCURCE NO. 3 .... AUTOMATED SPONGE BATH
****** WASTE ITEM NO. 3 .... USED TOWELS
         STATE ..... SOLID
         DENSITY ..... 8.00 LBS/CU. FT.
         ATTRIBUTES ..... TEXTILE, DAMP
         ELFMENTS PRESENT .. C-H-N
         CCMPOSITION ..... CELLULOSE
         GENERATION DATA ...
                 NO. OF MEN
                                     RATE(LBS/YEAR)
                   12
                                        1200.00
                   50
                                        5000.00
                  100
                                        1000.00
         RECLAMATION ACTION .. LAUNDER
***** WASTE ITEM NO. 4 .... USED SPENGE HEADS
         STATE ..... SOLID
         DENSITY ...... 1.20 LBS/CU. FT.
         ATTRIBUTES ..... PLASTIC, PATHUGENIC
         ELEVENTS PRESENT ..
         CCMPDSITION ..... POLYURETHANE
         GENERATION DATA ...
                 NO. OF IEN
                                      RATE(LBS/YEAR)
                   12
                                          88.00
                   50
                                         365.00
                  100
                                         730.00
        RECLAMATION ACTION .. CECONTAMINATE
**** ** WASTE ITEM AJ. 5 .... DETERGENT
         STATE ..... LIQUID
         DENSITY ..... 75.00 LBS/CU. FT.
         ATTRIBUTES ..... DETERGENT GERMICIDE
         ELEMENTS PRESENT ..
         COMPOSITION ..... AMINE + QUARTERNARI
         GENERATION DATA ...
                 NO. OF MEN
                                      RATE(LBS/YEAR)
                   12
                                          10.00
                   50
                                          40.00
                  100
                                          80.00
         RECLAMATION ACTION .. NONE
```

S/C SUBSYSTEM PARTIAL BODY WASH AND PERSONAL GRCCMING GROUP KEY 1.4.3

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BASIC FUNCTION SUPPORT LIFE FUNCTIONAL REQUIREMENT PROVIDE FOR CREW HYGIENE

** EJUIPMENT/EXPERIMENT NO. 1 HYGIENE CENTER

S/C AREAS BATHROOM

**** WASTE SOURCE NO. 1 HYGIENE CENTER

DOCUMENT NO. 1.4.3.1.1*

REFERENCE NO. 1 .. VOLUME 1 PRELIMINARY DESIGN REPORT (SPAC E STATION - HYGIENE, WASTE MANAGEMENT, A ND FOOD SUBSYSTEMS). FHR #3900, JUNE 1, 1970, FAIRCHILD HILLER/RAD

REFERENCE NO. 2 .. DESIGN SHEETS (HYGIENE AND FOOD MANAGEME NT) FOR MDAS, FHR #3902, JUNE 5, 1970, F AIRCHILD HILLER/RAD

REFERENCE NO. 3 .. PRELIMINARY DEFINITION - INTEGRATED HYGI ENE SYSTEM MATERIAL PROVISIONS, FHR #387 1, FEBRUARY 2, 1970, FAIRCHTLD HILLER/RA Ð

REFERENCE NO. 4 .. HYGIENE SYSTEMS ANALYSIS DEBRIS GENERATI ON ANDFLOW PATTERNS, FHR #3864, DECEMBER 30, 1969, FAIRCHILD HILLER/RAD

**** WASTE ITEM NO. 1 DIRTY WATER

STATE LICUID

DENSITY 62.40 LBS/CU. FT.

ATTRIBUTES WATER, SOAP, ORGANICS

ELEMENTS PRESENT ..

COMPOSITION WATER

GENERATION DATA ...

NO. OF MEN RATE(LBS/YEAR)

12 5615.00 50 23370.00

100 46740.00

RECLAMATICN ACTION .. DECONTAMINATE

```
S/C SURSYSTEM ..... PARTIAL BODY WASH AND PERSONAL GROCMING
   GROUP KEY .... 1.4.3
** EDUIPMENT/EXPERIMENT NO. 1 ......HYGIENE CENTER
**** WASTE SOURCE NO. 1 .... HYGIENE CENTER
**~** # TOOTH PASTE TUBES
        STATE ..... SOLID
        DENSITY ...... 190.00 LBS/CU. FT.
        ATTRIBUTES ..... METAL, PLASTIC, TUBE, SCAP RESIDUES
        ELEMENTS PRESENT .. ALLMINUM FUIL
        90T ADJYA ..... VDITISCAMOD
        GENERATION DATA ...
                N). CF MEN
                                   RATE(LBS/YEAR)
                  12
                                          8.00
                  50
                                         36.00
                                         72.00
                 100
        RECLAMATION ACTION .. REFILL
****** WASTE ITEM Ad. 3 .... WORN TOOTH BRUSHES
        STATE ..... SOLID
         DENSITY ..... 10C.00 LBS/CU. FT.
        ATTRIBUTES ..... PLASTIC, ROD, INFRT
        ELEMENTS PRESENT ..
        CCMPOSITION ..... AYLON
         GENERATION DATA ...
                NO. OF MEN
                                   RATE(LBS/YEAR)
                  12
                                         3.20
                  50
                                         14.30
                 100
                                         28.60
         RECLAMATION ACTION .. REPLACE WORN BRISTLES
**** WASTE ITEM NO. 4 ... RAZOR BLADES
         STATE ..... SOLID
         DENSITY ..... 40C.00 LBS/CU. FT.
         ATTRIBUTES ..... METAL, SHEET, INERT, SHARP
         ELEMENTS PRESENT ...
        CCMPOSITION ..... STEEL
         GENERATION DATA ...
                NO. OF MEN
                                   RATE(LBS/YEAR)
                  12
                                         1.93
                  50
                                          8.70
                                         17.40
                 100
        RECLAMATION ACTION .. RESHARPEN
```

```
S/C SUBSYSTEM .... PARTIAL BODY WASH AND PERSONAL GRECHING
    GROUP KEY ..... 1.4.3
** EQUIPMENT/EXPERIMENT NO. 1 .....HYGIENE CENTER
**** WASTE SOURCE NO. 1 ... HYGIENE CENTER
****** WASTE ITEM NO. 5 .... ODCR CONTROL CARTRIDGE
         STATE .... SOLID
         DENSITY ..... 50.00 LBS/CU. FT.
         ATTRIBUTES ..... CARBON, GRANULAR, DRGANIC, CONTAMINANTS
         ELEMENTS PRESENT ..
         COMPOSITION ..... ACTIVATED CHARCOAL
         GENERATION DATA ...
                 NO. OF MEN
                                      RATE(LBS/YEAR)
                                          32.00
                   12
                                          134.00
                   50
                                          268.00
                  100
         RECLAMATION ACTION .. REACTIVATE
**** WASTE ITEM NG. 6 .... FILTER SCREEN
         STATE ..... SOLID
         DENSITY ..... 20.00 LBS/CU. FT.
         ATTRIBUTES .... PLASTIC, ORGANIC, CONTAMINANTS
         ELEMENTS PRESENT ..
         COMPOSITION ..... GLASS, TEFLON
         GENERATION DATA ...
                 NO. OF MEN
                                      RATE(LBS/YEAR)
                   12
                                           72.00
                                          300.00
                   50
                  100
                                          600.00
         RECLAMATION ACTION .. REVERSE FLUSH
**** WASTE ITEM NO. 7 .... FAILED SINK PART
         STATE ..... SOLID
         DENSITY ...... 100.00 LBS/CU. FT.
         ATTRIBUTES ..... METAL, INERT
         ELEMENTS PRESENT ...
         COMPOSITION ..... STAINLESS STEEL
         GENERATION DATA ...
                 NO. OF MEN
                                      RATE(LBS/YEAR)
                                           60.00
                   12
                   50
                                          280.00
                                          500.00
                  100
         RECLAMATION ACTION .. REPLACE WORN SEALS
```

```
S/C RUBSYSTEM .... PARTIAL BODY WASH AND PERSONAL GROCMING
     JROUP KEY .... 1.4.3
 ** F JUTPMENT/EXPERIMENT NO. 1 ...... HYGIENE CENTER
 **** WASTE SOURCE NC. 1 .... HYCIENE CENTER
 *** * * WASTE ITEM NO. 8 .... SOILED TOWELS
           STATE ..... SOLID
           PENSITY ..... 8.00 LBS/CU. FT.
           ATTRIBUTES ..... FARRIC, LIGHT BODY SCIL
           ELEMENTS PRESENT .. C, H2, N2
           CCMPOSITION ..... CELLULOSE
           GENERATION DATA ...
                   NJ. OF MEN
                                       RATE(LBS/YEAR)
                    12
                                          1135.00
                    50
                                          5340.00
                                         10680.00
                    100
           RECLAMATICY ACTION .. LAUNDER
***** WASTE ITEM NJ. 9 .... WIPES, PACKAGING
           STATE ..... SCLID
           DENSITY ...... 65.00 LBS/CU. FT.
           ATTRIBUTES ..... VETAL, FOIL
           ELEMENTS PRESENT .. ALUMINUM
           COMPOSITION .....
           GENERATION DATA ...
                   NO. OF MEN
                                RATE(LBS/YEAR)
                    12
                                           115.00
                     53
                                           455.00
                    100
                                           910.00
           RECLAMATION ACTION .. NONE
  ***** WASTE ITEM NO. 10 .... WIPES, SOILED TISSUES
           STATE ..... SOLID
           DENSITY ...... 25.00 LBS/CU. FT.
           ATTRIBUTES ...... PAPER, LIQUIDS, BODY SOIL
           ELEMENTS PRESENT ..
           COMPOSITION ..... CELLULOSE, PROPYLENE GLYCOL
           GENERATION DATA ...
                   NO. OF MEN
                                        RATE(LBS/YEAR)
                    12
                                           345.00
                     50
                                          1365.00
                                          2730.00
                    100
           RECLAMATION ACTION .. NONE
```

- S/C SUBSYSTEM REVITALIZATION OF TEXTILES GROUP KEY 1.4.4

BASIC FUNCTION SUPPORT LIFE FUNCTIONAL REQUIREMENT PROVIDE FOR CREW HYGICAE

** EQUIPMENT/EXPERIMENT NO. 1 LAUNDRY

S/C AREAS LAUNDRY

**** WASTE SOURCE NO. I LAUNDRY

DOCUMENT NO. 1.4.4.1.1*

REFERENCE NO. 1 .. VOL. 1 PRELIMINARY DESIGN REPORT (SPACE S TATION HYGIENE, WASTE MANAGEMENT, AND FOOD SUBSYSTEMS) FHR #3900 JUNE 1,1970 FH/RAD

REFERENCE NO. 2 .. SURFACE ACTIVE AGENTS AND DETFFGENTS AM.
SCHWARTZ, J.W. PERRY, J.BERCH. VCL. 2, INTE
RSCIENCE PUBLISHERS, INC., N.Y. 2ND PRINTI
NG, MAY 1966.

REFERENCE NO. 3 .. HANDBOCK OF GARMENT SELECTION CRITERIA F DR A SPACE STATION. NASA CR 102051, BY B . kelson & co., inc. Hartford Connecticut (1969)

REFERENCE NO. 4 .. PRELIMINARY DEFINITION-INTEGRATED HYGIEN E SYSTEM MATERIAL PROVISIONS, FHR 43871 FEB.2,1970 FH/RAD

REFERENCE NO. 5 .. HYGIENE SYSTEMS ANALYSIS DFBRIS GENERATI CN AND FLOW PATTERNS, FHR #3864 CEC.30,1 969 FH/RAD

**** WASTE ITEM NO. 1 ... WASH WATER

STATE LIQUID

DENSITY 62.40 LBS/CU. FT. ATTRIBUTES WATER, ORGANIC SOIL

ELEMENTS PRESENT ..

COMPOSITION WATER

GENERATION DATA ...

NO. OF MEN RATE(LBS/YEAR)
12 143000.00
50 600000.00

50 600000.00 100 200000.00

RECLAMATION ACTION .. DECONTAMINATE

```
S/C SURSYSTEM .... REVITALIZATION OF TEXTILES
   GROUP KEY ..... 1.4.4
** EJUIDMENT/FXPERIMENT NO. I .....LAUNDRY
**** WASTE SOURCE NJ. 1 .... LAUNDRY
**** WASTE ITEM NJ. 2 .... SCAP PACKAGING
         STATE ..... SCLID
         DENSITY ...... 30.00 LRS/CU. FT.
         ATTRIBUTES ..... ORGANIC BULKEY, INERT
         ELEMENTS PRESENT ..
         COMPOSITION ..... POLYETHYLENE
         GENERATION DATA ...
                 NO. OF YEN
                                      RATE(LBS/YEAR)
                   12
                                           3.50
                   50
                                          15.00
                  100
                                          30.00
         RECLAMATION ACTION .. REPROCESS
**** WASTE ITEM NO. 3 .... FILTER SCREEN/LINT
         STATE ..... SCLID
         DENSITY ..... 20.00 LBS/CU. FT.
         ATTRIBUTES ..... PLASTIC SCREEN PLUS TEXTILE LINT
         ELEMENTS PRESENT ..
         CCMP JSITICN ..... GLASS, TEFLON, CFLLULOSE
         GENERATION DATA ...
                                      RATE(LBS/YEAR)
                 NO. OF MEN
                                          10.00
                   12
                   50
                                          45.00
                  100
                                          90.00
        -RECLAMATION ACTION .. REVERSE FLUSH
**** WASTE ITEM NO. 4 ... FILTER SCREEN/SEPERATOR
         STATE ..... SOLID
         DENSITY ...... 20.00 LBS/CU. FT.
         ATTRIBUTES ..... PLASTIC SCREEN
         ELEMENTS PRESENT ..
         COMPOSITION ..... GLASS, TEFLON
         GENERATION DATA ...
                 NO. OF MEN
                                      RATE(LBS/YEAR)
                   12
                                           2.40
                   50
                                           10.00
                  100
                                          20.00
         RECLAMATION ACTION .. REVERSE FLUSH
```

```
S/C SUBSYSTEM .... REVITALIZATION OF TEXTILES
   GROUP KEY ..... 1.4.4
** EQUIPMENT/EXPERIMENT NO. 1 .....LAUNDRY
**** WASTE SOURCE NO. 1 .... LAUNDRY
***********************************
**** WASTE ITEM NO. 5 .... FAILED MOTOR/GEARS
         STATE ..... SOLID
         DENSITY ..... 200.00 LBS/CU. FT.
         ATTRIBUTES ..... METAL CYLINDER, COMPACT
         ELEMENTS PRESENT .. COPPER
         COMPOSITION ..... STEEL, PLASTIC
         GENERATION DATA ...
                  NO. OF MEN
                                        RATE(LBS/YEAR)
                    12
                                             10.00
                    50
                                             41.50
                                             93.00
                   100
         RECLAMATION ACTION .. REPLACE WORN PARTS
**** WASTE ITEM NO. 6 .... FAILED VALVING, BEARINGS, SEALS, CONTROLS
         STATE ..... SOLID
DENSITY ..... 100.00 LBS/CU. FT.
         ATTRIBUTES ..... METAL COMPACT
         ELEMENTS PRESENT .. COPPER
         COMPOSITION ..... STEEL, PLASTIC
         GENERATION DATA ...
                  ND. OF MEN
                                        RATE(LBS/YEAR)
                    12
                                             12.50
                                             52.00
                    50
                   100
                                            104.00
         RECLAMATION ACTION .. REPLACE WORN PARTS
```

S/C SUBSYSTEM CREW QUARTERS HOUSEKEEPING CAPABILITY JROUP KEY 1.4.5

BASIC FUNCTION SUPPORT LIFE FUNCTIONAL REQUIREMENT ... PROVIDE FOR CREW HYGIENE

** FJUIPMENT/EXPERIMENT NO. 1 VACUUM CLEANER

S/C APEAS MAINTENANCE

**** WASTE SOURCE NO. 1 VACUUM CLEANER

DOCUMENT NO. 1.4.5.1.1x

REFERENCE NO. 1 .. VOL.1 PRELIMINARY DESIGN REPORT (SPACE ST ATION HYGIENE, WASTE MANAGEMENT, AND FOOD SUBSYSTEMS). FHR # 3900 JUNE 1,1970 FH/ RAD.

PEFFRENCE ND. 2 .. HOUSEKEEPING AND TRASH DISPOSAL EQUIPMEN T SPACE STATION.-FHR #3800 FEB.16,1970 F H/RAD.

REFERENCE NO. 3 .. HYGIENE SYSTEMS ANALYSIS DEBRIS GENEPATI CN AND FLOW PATTERNS.-FHR #3864 DEC.30,1 (965 FH/RAD.

**** WASTE ITEM NJ. 1 LIQUID/SOLID DEBRIS BAGS

STATE SCLID

DENSITY 60.00 LBS/CU. FT.

ATTRIBUTES PLASTIC SHEET, ORGANIC DEBRIS

FLEMENTS PRESENT ..

CCMPOSITION TEFLON

GENERATION DATA ...

NO. OF MEN RATE(LBS/YEAR)

12 5.10 50 21.10

100 42.40 RECLAMATION ACTION .. EMPTY, REVERSE FLUSH

```
S/C SUBSYSTEM .... CREW QUARTERS HOUSEKEFPING CAPABILITY
    GROUP KEY ..... 1.4.5
** EQUIPMENT/EXPERIMENT NO. 1 ......VACUUM CLEANER
**** WASTE SOURCE NO. 1 .... VACUUM CLEANER
****** WASTE ITEM NO. 2 .... SOLID DEBPIS IN BAGS
         STATE ..... SOLID
         DENSITY ..... 1C.00 LBS/CU. FT.
         ATTRIBUTES ..... ORGANIC
         ELEMENTS PRESENT ..
         COMPOSITION ..... DUST, FOOD, HAIR
         GENERATION DATA ...
                 NO. OF MEN
                                      RATE(LBS/YEAR)
                   12
                                          21.00
                   50
                                          87.50
                  100
                                         175.00
         RECLAMATION ACTION .. NONE
***** WASTE ITEM NO. 3 ... FAILED BLOWER MOTOR
         STATE ..... SOLID
         DENSITY ..... 20C.00 LBS/CU. FT.
         ATTRIBUTES ..... METAL COMPACT CYLIND.
         ELEMENTS PRESENT .. AL+CU
         COMPOSITION .....
         GENERATION DATA ...
                 NO. OF MEN
                                     RATE(LBS/YEAR)
                  12
                                          21.00
                  50
                                          87.50
                  100
                                         175.00
         RECLAMATION ACTION .. REPAIR, WORN PART
***** WASTE ITEM NO. 4 .... FAILED HOSE
         STATE ..... SOLID
         DENSITY ..... 20.00 LBS/CU. FT.
         ATTRIBUTES ..... PLASTIC HOLLOW TUBE
         ELEMENTS PRESENT ..
         CCMPOSITION ..... TEFLON
         GENERATION DATA ...
                 NO. OF MEN
                               RATE(LBS/YEAR)
                   12
                                           3.00
                   50
                                          12.50
                  100
                                          25.00
         RECLAMATION ACTION .. PATCH
```

```
PACE 70
S/C SURSYSTEM .... CREW QUARTERS HOUSEKEEPING CAPABILITY
    3R7UP KEY ..... 1.4.5
* EQUIPMENT/EXPERIMENT NO. 2 ..... SURFACE WASHER/WIPER(AUTOMATED M
                                   OP )
         S/C AREAS ..... MAINTENANCE
**** WASTE SOURCE NO. 1 .... SURFACE WASHER/WIPER(AUTCMATED MOP)
         DOCUMENT NO. ..... 1.4.5.2.1*
         REFERENCE NO. 1 .. VOL. 1 PRELIMINARY DESIGN REPORT (SPACE S
                            TATION-HYGIENE, WASTE MANAGEMENT, AND FOOD
                            SUBSYSTEMS) FHR #3900, JUNE 1, 1970, FH/RA
                            D.
         REFERENCE NO.
                       2 .. HOLSEKEEPING AND TRASH DISPOSAL EQUIPMEN
                            T SPACE STATION. FHR # 3880 FEBRUARY 16,
                            1970, FH/RAD.
         REFERENCE ND.
                       3 .. PRELIMINARY DEFINITION-INTEGRATED HYGIEN
                            E SYSTEM MATERIAL PROVISIONS: FHR # 3871
                            *FEBRUARY 2,1970,FH/RAD.
         REFERENCE NO.
                       4 .. HYGIENE SYSTEMS ANALYSIS DEBRIS GENERATI
                            ON AND FLOW PATTERNS, FHR #3864, DECEMBER \
                            30, 1969, FH/RAD
**** WASTE ITEM NO. 1 ... EXHAUSTED FILTERS
         STATE ..... SOLID
         DENSITY ..... 20.00 LBS/CU. FT.
         ATTRIBUTES ..... PLASTIC SHEET ORGANIC DEBRIS
         ELEMENTS PRESENT ..
```

CCMPOSITION TEFLON.GLASS GENERATION DATA ... NO. OF MEN RATE(LBS/YEAR) 12 10.80

50 45.00 90.00 100

RECLAMATION ACTION .. REVERSE FLUSH

```
S/C SUBSYSTEM .... CREW QUARTERS HOUSEKEEPING CAPABILITY
   3ROUP KEY ..... 1.4.5
** EQUIPMENT/EXPERIMENT NO. 2 .....SURFACE WASHER/WIPER(AUTCMATED M
                                 0P)

√*** WASTE SOURCE NO. 1 .... SURFACE WASHER/WIPER(AUTGMATED MGP)

***** WASTE ITEM NO. 2 .... DIRTY SPONGE HEADS
         STATE ..... SOLID
        DENSITY ..... 3.00 LBS/CU. FT.
        ATTRIBUTES ..... PLASTIC, ORGANIC DEBRIS
         ELEMENTS PRESENT ..
        COMPOSITION ..... POLYURETHANE
        GENERATION DATA ...
                NO. OF MEN
                                     RATE(LBS/YEAR)
                  12
                                          7.20
                  50
                                          30.00
                 100
                                          60.00
        RECLAMATION ACTION .. DECONTAMINATE(LAUNDER)
# STERIAL BACTERICIDE ASAW HSAW HSAW ** ***
         STATE ..... LIGUID
        DENSITY ..... 62.40 LBS/CU. FT.
         ATTRIBUTES ..... WATER
        ELEMENTS PRESENT ..
        COMPOSITION ..... WATER
        GENERATION DATA ...
                 NO. OF MEN
                                    RATE(LBS/YEAR)
                  12
                                         315.00
                  50
                                        1313.00
                  100
                                        2626.00
        RECLAMATION ACTION .. FILTER DISTILL
**** WASTE ITEM NO. 4 ... FAILED BLOWER
         STATE ..... SOLID
         DENSITY ..... 20C.00 LBS/CU. FT.
        ATTRIBUTES .... METAL
         ELEMENTS PRESENT .. AL CU
        COMPOSITION .....
         GENERATION DATA ...
                NO. OF MEN
                                     RATE(LBS/YEAR)
                  12
                                           2.10
                  50
                                           5.20
                  100
                                          18.20
        RECLAMATION ACTION .. REPLACE WORN PARTS
```

```
S/C BURSYSTEM .... CREW QUARTERS HOUSEKFEPING CAPABILITY
    3ROUP KEY .... 1.4.5
** EQUIPMENT/EXPERIMENT No. 2 .....SURFACE WASHER/WIPER(AUTOMATED M
                                  DP)
*** NASTE SCLRCE NO. 1 .... SURFACE WASHER/WIPER(AUTOMATED MOP)
***** WASTE ITEN NO. 5 .... FAILED HOSE
         STATE ..... SOLID
         DENSITY ..... 26.00 LBS/CU. FT. ATTRIBUTES ..... PLASTIC HOLLOW TUBE
         ELEVENTS PRESENT ..
         CCMPOSITION ..... TEFLON
         CENERATION DATA ...
                 VO. OF MEN
                                     RATE(LBS/YEAR)
                                           1.25
                   12
                                           0.00
                   50
                                           10.40
                  100
         RECLAMATION ACTION .. PATCH
```

PROVIDE AND CONTROL ATMOSPHERIC ENVIRONMENT

S/C SUBSYSTEM ATMOSPHERIC GAS SUPPLY SROUP KEY 1.5.1

BASIC FUNCTION SUPPORT LIFE FUNCTIONAL REQUIREMENT ENVIRONMENTAL CONTROL/LIFE SUPPO

RT

** EQUIPMENT/EXPERIMENT NO. 1 SUPERCRITICAL STORAGE AND SUPPLY

S/C AREAS STCRAGE

**** WASTE SOURCE NO. 1 ... SUPERCRITICAL STORAGE AND SUPPLY

DOCUMENT NO. 1.5.1.1.1*

REFERENCE NO. 1 .. ROTH, E.M., SELECTION CF SPACE CABIN ATMOS PHERES. PART I AND IV, NASA TN-D-2008, A UGLST 1963

REFERENCE NO. 2 .. LIFE SUPPORT FOR SPACE FLIGHTS OF EXTEND ED TIME PERIODS.NASA CR-614, GENERAL DYNA MICS (CONTRACT NAS 1-2934

***** WASTE ITEM ND. 1 PRESSURE SEALS

STATE SOLID

DENSITY 100.00 LBS/CU. FT.

ATTRIBUTES METAL RING ELEMENTS PRESENT .. FE,NI,CU

COMPOSITION

GENERATION DATA ...

NO. OF MEN RATE(LBS/YEAR)

12 0.64 50 2.60 100 5.20

RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 2 PRESSURE SENSING SELECTOP VALVE

STATE SCLID

DENSITY 100.00 LBS/CU. FT.

ATTRIBUTES METAL ELEMENTS PRESENT .. AL FE, NI

COMPOSITICN

GENERATION DATA ...

NO. OF MEN RATE(LBS/YEAR)

12 1.50 50 6.00 100 12.00

PECLAMATION ACTION .. N/R

S/C SUBSYSTEM ATMOSPHERIC CONTROL

GROUP KEY 1.5.2

BASIC FUNCTION SUPPORT LIFE

FUNCTIONAL REQUIREMENT ENVIRONMENTAL CENTROL/LIFE SUPPO

RT

** EJUIPMENT/EXPERIMENT NO. 1 ATMOSPHERIC VIXING AND PRESSURE

CONTROL

S/C AREAS STCRAGE

**** WASTE SOURCE NJ. 1 ATMOSPHERIC MIXING AND PRESSURE CONTROL

DOCUMENT NO. 1.5.2.1.1*

***** WASTE ITEM NO. 1 REGULATOR DIAPHRAM

STATE SOLID

DENSITY 550.00 LBS/CII. FT.

ATTRIBUTES METAL, SHEET ELEMENTS PRESENT .. FE, NI, CO

COMPOSITION

GENERATION DATA ...

NO. OF MEN RATE(LBS/YEAR)

12 0.02 50 0.10 100 0.20

RECLAMATION ACTION .. N/R

**** WASTE ITEM NO. 2 PRESSURE SEALS

STATE SOLID

DENSITY 20.00 LBS/CU. FT. ATTRIBUTES METAL, RING ELEMENTS PRESENT .. FE, NI, CU

COMPOSITION

GENERATION DATA ...

NO. OF MEN RATE(LBS/YEAR)

12 0.30 50 1.20 100 2.50

RECLAMATION ACTION ... N/R

```
S/C SUBSYSTEM .... ATMOSPHERIC CONTROL
   GROUP KEY .... 1.5.2
** EQUIPMENT/EXPERIMENT NO. 1 .....ATMOSPHERIC MIXING AND PRESSURE
                                 CONTROL
**** WASTE SOURCE NO. 1 .... ATMOSPHERIC MIXING AND PRESSURE CONTROL
**** WASTE ITEM NO. 3 ... PRESSURE SENSOR, CONTACT SET
         STATE ..... SOLID
         DENSITY ..... 30G.00 LBS/CU. FT.
         ATTRIBUTES ..... METAL, STRIP
        ELEMENTS PRESENT .. FE, CU
         COMPOSITION .....
         GENERATION DATA ...
                NO. OF MEN
                                     RATE(LBS/YEAR)
                  12
                                          0.01
                                          0.05
                  50
                                          0.10
                 100
        RECLAMATION ACTION .. N/R
**** WASTE ITEM NO. 4 .... SOLENGID VALVE
         STATE ..... SOLID
         DENSITY ..... 290.00 LBS/CU. FT.
         ATTRIBUTES .... METAL
         ELEMENTS PRESENT .. FE, CU
         COMPOSITION .....
         GENERATION DATA ...
                 NO. OF MEN
                                    RATE(LBS/YEAR)
                  12
                                          0.50
                  50
                                          2.00
                                          4.00
                  100
         RECLAMATION ACTION .. REPAIR ON BOARD
```

```
S/C 3LBSYSTEM .... ATMOSPHERIC TEMPERATURE AND HUMIDITY CONTROL
   SROUP KEY .... 1.5.3
PASIC FUNCTION ..... SUPPORT LIFE
         FUNCTIONAL REQUIREMENT .... ENVIRONMENTAL CONTROL/LIFE SUPPO
                                  RI SYSTEMS
** EJUIPMENT/EXPERIMENT NO. 1 ..... VARIABLE SPEED FAN SYSTEM
         S/C AREAS ..... EQUIPMENT
**** WASTF SOURCE NJ. 1 .... VARIABLE SPEED FAN
         DOCUMENT NO. ..... 1.5.3.1.1*
         REFERENCE NO. 1 .. ROTH, E.M , SELECTION OF SPACE CABIN ATM
                           CSPERES. PART I AND IV. NASA-TN-0-2008,
                           AUGUST 1963.
                      2 .. LIFE SUPPORT FOR SPACE FLIGHTS OF EXTEND
         REFERENCE NO.
                           ED IME PERIODS. NASA CR-614, GENERAL DY
                           NAMICS (CONTRACT NAS 1-294)
***** WASTE ITEM NO. 1 .... MICROPOROUS FILTER
         STATE ..... SOLID
         DENSITY ..... 30.00 LBS/CU. FT.
         ATTRIBUTES ..... MEMBRANE, PLASTIC
         FLEMENTS PRESENT ..
         COMPOSITION ..... FLGURINATED, PLASTIC, CCMPCUND
         CENERATION DATA ...
                 NO. OF MEN
                                     RATE(LBS/YEAR)
                   12
                                           0.16
                   50
                                           0.70
                  100
                                           1.50
         RECLAMATION ACTION .. N/R
***** WASTE ITEM NO. 2 .... PRESSURE SEAL
         STATE ..... SCLID
         DENSITY ..... 20.00 LBS/CU. FT.
         ATTRIBUTES ..... RUBBER, SHEET
         ELEMENTS PRESENT ..
         COMPOSITION ..... BUTYL
         GENERATION DATA ...
                 NO. OF MEN
                                    RATE(LBS/YEAR)
                   12
                                           1.00
                   50
                                           4.00
                                           8.00
                  100
         RECLAMATION ACTION .. N/R
```

```
S/C SUBSYSTEM .... ATMOSPHERIC TEMPERATURE AND HUMIDITY CONTROL
   GROUP KEY .... 1.5.3
** EQUIPMENT/EXPERIMENT NO. 1 .....VARIABLE SPEED FAN SYSTEM
**** WASTE SOURCE NO. 1 .... VARIABLE SPEED FAN
***** WASTE ITEM NO. 3 .... FAN MOTOR
         STATE ..... SOLID
         DENSITY ..... 290.00 LBS/CU. FT. 1
         ATTRIBUTES ..... CYLINDRICAL, METAL
         ELEMENTS PRESENT .. CCPPER, IRON
         COMPOSITION .....
         GENERATICN DATA ...
                 NO. OF MEN
                                      RATE(LBS/YEAR)
                   12
                                           3.00
                   50
                                           7.00
                  100
                                          14.00
         RECLAMATION ACTION .. N/R
**** WASTE ITEM NO. 4 .... TEMPERATURE CONTROL UNIT PARTS
         STATE ..... SOLID
         DENSITY ..... 6C.00 LBS/CU. FT.
         ATTRIBUTES .... PLASTIC, METAL
         ELEMENTS PRESENT .. CU, FE
         COMPOSITION ..... PHENOLIC
         GENERATION DATA ...
                 NO. OF MEN
                                      RATE(LBS/YEAR)
                   12
                                           0.32
                   50
                                           1.30
                  100
                                           2.60
         RECLAMATION ACTION .. REPAIR COMPONENT
***** WASTE ITEM NO. 5 .... FACE WICKS
         STATE ..... SOLID
         DENSITY ...... 60.00 LBS/CU. FT.
         ATTRIBUTES ..... WET, FIBROUS MAT
         ELEMENTS PRESENT ..
         COMPOSITION ..... COTTON, NYLON
         GENERATION DATA ...
                 NO. OF MEN
                                      RATE(LBS/YEAR)
                   12
                                           1.20
                   50
                                           5.00
                  100
                                          10.00
         RECLAMATION ACTION .. N/R
```

```
S/C SUBSYSTEM .... ATMOSPHERIC TEMPERATURE AND HUMIDITY CONTROL
   GROUP KEY ..... 1.5.3
** EQUIPMENT/EXPERIMENT NO. 1 .....VARIABLE SPEED FAN SYSTEM
**** WASTE SOURCE NO. 1 .... VARIABLE SPEED FAN
***** VASTE ITEM NJ. 6 .... HUMIDITY CONTROL UNIT PARTS
         STATE ..... SOLID
         DENSITY ..... 60.00 LBS/CU. FT.
         ATTRIBUTES ..... PLASTIC, METAL
         ELEMENTS PRESENT .. CU, FE
         COMPOSITION ..... PHENOLIC
         GENERATION DATA ...
                NO. OF MEN
                                     RATE(LBS/YEAR)
                  12
                                          0.32
                  50
                                          1.30
                 100
                                          2.60
        RECLAMATION ACTION .. REPAIR COMPONENT
**** WASTE ITEM NO. -7 .... HUMIDITY CONTROL VALVE
         STATE ..... SOLID
        DENSITY .... 260.00 LBS/CU. FT.
         ATTRIBUTES ..... METAL
         ELEMENTS PRESENT .. FE, NI, CU
        COMPOSITION .....
         GENERATION DATA ...
                NO. OF MEN
                                     RATE(LBS/YEAR)
                  12
                                          1.50
                  50 °
                                          6.00
                 100
                                          12.00
        RECLAMATION ACTION .. REPAIR ON BOARD
```

```
S/C SUBSYSTEM .... TRACE CONTAMINANT REMOVAL SYSTEM
    GROUP KEY ..... 1.5.4
RASIC FUNCTION ...... SUPPOPT LIFE
         FUNCTIONAL REQUIREMENT .... ENVIRONMENTAL CONTROL/LIFE SUPPO
                                  RT
** EQUIPMENT/EXPERIMENT NO. 1 ..... REGENERABLE CHARCOAL/C/TALYTIC C
                                 XIDATION SYSTEM
         S/C AREAS ..... EQUIPMENT
*** WASTE SOURCE NO. 1 .... RECENERABLE CHARCOAL/CATALYTIC OXIDATION
                           SYSTEM
         DOCUMENT NO. ..... 1.5.4.1.1*
***** WASTE ITEM NO. 1 .... FAN MOTOR
         STATE ..... SOLID
         DENSITY ..... 25C.00 LBS/CU. FT.
         ATTRIBUTES ..... METAL
         ELEMENTS PRESENT .. FE, CU
         COMPOSITION .....
        GENERATION DATA ...
                NO. OF MEN
                                    RATE(LBS/YEAR)
                  12
                                          1.00
                  50
                                          3.00
                 100
                                          5.00
        RECLAMATION .. REPAIR ON BOARD
***** WASTE ITEM NO. 2 .... REGULATOR
         STATE ..... SOLID
        DENSITY ..... 250.00 LBS/CU. FT.
         ATTRIBUTES .... METAL
        FLEMENTS PRESENT .. AL, FE, NI
        COMPOSITION .....
        GENERATION DATA ...
                NO. OF MEN
                                     RATE(LBS/YEAR)
                  12
                                          0.09
                  50
                                          0.40
                 100
                                           0.80
        RECLAMATION ACTION .. REPAIR ON BOARD
```

```
S/C SUBSYSTEM .... TRACE CONTAMINANT REMOVAL SYSTEM
    GROUP KEY ..... 1.5.4
                                      ¥
** E DUIPMENT/CXPERIMENT NO. 1 .....REGENERABLE CHARCOAL/CATALYTIC O
                                   XIDATION SYSTEM
*** WASTE SOURCE NO. I .... RECENTRABLE CHARCOAL/CATALYTIC OXIDATION
                            SYSTEM
**** T WASTE ITEM NO. 3 ... HEATER CONTROL
         STATE ..... SOLID
         DENSITY ..... 225.00 LBS/CU. FT.
         ATTRIBUTES .... METAL
         ELEMENTS PRESENT .. FE, CU
         COMPOSITION .....
         GENERATION DATA ...
                 NO. OF MEN
                                     RATE(LBS/YEAR)
                   12
                                            2.00
                   50
                                            6.00
                  100
                                           10.00
         RECLAMATION ACTION .. REPAIR ON BOARD
*** * ** WASTE ITEM NO. 4 .... 4 WAY VALVE
         STATE ..... SGLID
         DENSITY ..... 285.00 LBS/CU. FT.
         ATTRIBUTES ..... METAL
         ELEMENTS PRESENT .. FE, NI
         COMPOSITION .....
         GENERATION DATA ...
                 NO. OF MEN
                                       RATE(LBS/YEAR)
                   12
                                            5.00
                   50
                                           20.00
                  100
                                           35.00
         RECLAMATION ACTION ... REPAIR ON BOARD
☆☆☆☆☆ WASTE ITEM ND。 5 .... PRE-SORBER/POST-SORBER
         STATE ..... SOLID
         DENSITY ...... 180.00 LBS/CU. FT. ATTRIBUTES ..... METAL
         ELEMENTS PRESENT .. AL
         COMPOSITION ..... CUSO4, SI
         GENERATION DATA ...
                 NO. OF MEN
                                     RATE(LBS/YEAR)
                   12
                                            4.00
                   50
                                           18.00
                  100
                                           36.00
         RECLAMATION ACTION .. N/R
```

```
S/C SUBSYSTEM .... TRACE CONTAMINANT REMOVAL SYSTEM
    GROUP KEY .... 1.5.4
** EJUIPMENT/EXPERIMENT NO. 1 .....REGENERABLE CHARCOAL/CATALYTIC O
                                  XIDATION SYSTEM
*** WASTE SOURCE NO. 1 .... REGENERABLE CHARCOAL/CATALYTIC OXIDATION
                            SYSTEM
**** WASTE ITEM NO. 6 ... CATALYTIC BURNER
         STATE ..... SOLID
         DENSITY ..... 28C.00 LBS/CU. FT.
         ATTRIBUTES ..... METAL
         ELEVENTS PRESENT .. AL
         COMPOSITICY .... PALADIUM ALUMINA CATALYST
         GENERATION DATA ...
                 NO. CF MEN
                                      RATE(LBS/YEAR)
                   12
                                           8.00
                   50
                                           36.00
                  100
                                           72.00
         RECLAMATION - ACTION .. N/R
**** WASTE ITEA NO. 7 ... CHARCOAL BED
         STATE ..... SOLID
         DENSITY ..... 4C.00 LBS/CU. FT.
         ATTRIBUTES .... WOCD
         ELEMENTS PRESENT .. ALUMINUM
         COMPOSITION ..... ACTIVATED CHARCDAL
         GENERATION DATA ...
                 NO. OF MEN
                                      RATE(LBS/YEAR)
                   12
                                            8.00
                   5 U
                                           36.00
                  100
                                           72.00
         RECLAMATION ACTION .. REPLACE CHARCOAL
***** NASTE ITEM NO. 8 .... CONTAMINATED GASSES
         STATE ..... GASFOUS
         DENSITY .....
                             C.OO LBS/CU. FT.
         ATTRIBUTES .... AMBIENT
         ELEMENTS PRESENT ..
         CGMPOSITION ..... H CL, CL2, F2, BENEZENE, NH31FREGN 13, CH4, ET
                           HANOL, H2S, TOLUENE, ETC.
         GENERATION DATA ...
                 NO. OF MEN
                                      RATE(LBS/YEAR)
                   12
                                            0.80
                   50
                                            1.00
                  1.00
                                            1.80
         RECLAMATION ACTION ..
```

```
S/C >URSYSTEM .... BACTERIAL/PARTICULATE CENTROL SYSTEM
   GROUP KEY .... 1.5.5
BASIC FUNCTION ...... SUPPORT LIFE
        FUNCTIONAL REQUIREMENT .... ENVIRONMENTAL CONTROL/LIFE SUPPO
** EJUIPMENT/EXPERIMENT NO. 1 ..... DIRECT STORAGE METHOD
        S/C AREAS ..... EQUIPMENT
*** WASTE SOURCE ND. 1 .... DIRECT STORAGE METHOD
        DOCUMENT NO. ..... 1.5.5.1.1*
**** WASTE ITEM NO. 1 ... FILTER BAGS
        STATE ..... SOLID
        DENSITY ..... 4.00 LBS/CU. FT.
        ATTRIBUTES .... PLASTIC
        ELEMENTS PRESENT ..
        COMPOSITION ..... POLYETHYLENE
        GENERATION DATA ...
                NO. OF MEN
                                   RATE(LBS/YEAP)
                 12
                                       24.00
                 50
                                       100.00
                 100
                                       200.00
```

RECLAMATION ACTION .. N/R

**** WASTE ITEM NO. 2 FILTER SCREEN STATE SOLID DENSITY 20.00 LBS/CU. FT. ATTRIBUTES FILM ELEMENTS PRESENT .. FF,NI COMPOSITION PAPER GENERATION DATA ... NO. OF MEN RATE(LBS/YEAR) 12 360.00 50 1440.00 100 2880.00 RECLAMATION ACTION .. N/R

```
S/C SUBSYSTEM .... BACTERIAL/PARTICULATE CONTROL SYSTEM
   GROUP KEY .... 1.5.5
÷*、EQUIPMENT/EXPERIMENT NO. 2 ..... STERILIZATICN/STCRAGE METH∩D
         S/C AREAS ..... EQUIPMENT
**** WASTE SOURCE NJ。 l .... STERILIZATION/STORAGE METHOD
         DOCUMENT NO. ..... 1.5.5.2.1*
***** WASTE ITE + NC. 1 .... HEATER COIL AND CONTROL
         STATE ..... SOLID
         DENSITY ...... 225.00 LBS/CU. FT.
         ATTRIBUTES .... METAL
         ELFPENTS PRESENT .. FE, CU, C
         COMPOSITION .....
         GENERATION DATA ...
                 NO. OF MEN
                                      RATE(LBS/YEAR)
                   12
                                          10.00
                   50
                                          20.00
                  100
                                          35.00
         RECLAMATION ACTION .. REPAIR ON BOARD
·*** WASTE ITEM NO. 2 .... FILTER BAGS
         STATE ..... SOLID
         DENSITY ..... 4.00 LBS/CU. FT.
         ATTRIBUTES .... PLASTIC
         ELEMENTS PRESENT ..
         COMPOSITION ..... POLYETHYLENE
         GENERATION DATA ...
                 NO. OF MEN
                                      RATE(LBS/YEAR)
                   12
                                          38.00
                   50
                                         150.00
                  COL
                                         300.00
         RECLAMATION ACTION .. N/R
**** WASTE ITEM NO. 3 .... FILTER SCREWS
         STATE ..... SOLID
         DENSITY ..... 20.00 LBS/CU. FT.
         ATTRIBUTES ..... FILM
         ELFMENTS PRESENT .. FE,NI
         CCMPOSITION ..... PAPER
         GENERATION DATA ...
                 NO. OF MEN
                                      RATE(LBS/YEAR)
                   12
                                         360.00
                   50
                                        1440.00
                  100
                                        2880.00
         RECLAMATION ACTION .. N/R
```

```
S/C SUBSYSTEM ..... CARBON DICKIDE CONTROL AND OXYGEN GENERATION
    3ROUP KEY .... 1.5.6
BASIC FUNCTION ..... SUPPORT LIFE
        FUNCTIONAL REQUIREMENT .... ENVIRONMENTAL CONTROL/LIFE SUPPO
                                 RT
** EQUIPMENT/EXPERIMENT NO. 1 ..... CO2 REMOVAL/CONCENTRATION SYSTEM
         S/C AREAS ..... EQLIPMENT
**** WASTE SOURCE NO. 1 .... CO2 REMOVAL/CONCENTRATION SYSTEMS
         DOCUMENT NO. ..... 1.5.6.1.1%
MAA .... I .... FAN
         STATE ..... SOLID
         DENSITY ..... 290.00 LBS/CU. FT.
         ATTRIBUTES ..... METAL
         ELEMENTS PRESENT .. FE, CU
         COMPOSITION .....
         GENERATION DATA ...
                 NO. OF MEN
                                     RATE(LBS/YEAR)
                  12
                                          8.50
                  50
                                         17.00
                  100
                                         25.50
         RECLAMATION ACTION .. REPAIR ON BOARD
**** WASTE ITEM NO. 2 ... ABSORPTION BED
         STATE ..... SOLID
         DENSITY ..... 105.00 LBS/CU. FT.
        "ATTRIBUTES ..... METAL
         ELEMENTS PRESENT .. FE
         COMPOSITION .... RESIN
         GENFRATION DATA ...
                 NO. OF MEN
                                     RATE(LBS/YEAR)
                  12
                                          6.00
                  50
                                         18.00
                  100
                                         24.00
         RECLAMATION ACTION .. N/R
```

```
S/C SUBSYSTEM .... CARBON DIGXIDE CONTROL AND OXYGEN GENERATION
   GROUP KEY ..... 1.5.6
** EQUIPMENT/EXPERIMENT NO. 1 .....CO2 REMOVAL/CONCENTRATION SYSTEM
                                  S
*** WASTE SOURCE NO. 1 .... CC2 REMCVAL/COACENTRATION SYSTEMS
**** WASTE ITEM NJ. 3 .... DIVERTER VALVE
         STATE ...... SCLID
         DENSITY ..... 23C.00 LBS/CU. FT.
         ATTRIBUTES .... METAL
         ELEMENTS PRESENT .. FE, CU
         CCMPOSITION .....
         GENERATION DATA ...
                 NO. OF MEN
                                    RATE(LBS/YEAR)
                  12
                                           1.00
                  50
                                           3.00
                                           6.00
                  100
         RECLAMATION ACTION ..
**** WASTE ITEM NJ. 4 .... CONDENSCR/SEPARATOR
         STATE ..... SOLID
         DENSITY ...... 27C.00 LBS/CU. FT.
         ATTRIBUTES ..... METAL
         ELEMENTS PRESENT .. FE, NI, CU
         COMPOSITION .....
         GENERATION DATA ...
                 NO. OF 1EN
                                    RATE(LBS/YEAR)
                  12
                                          40.00
                   50
                                         120.00
                  100
                                         200.00
         RECLAMATION ACTION ..
**** WASTE ITEM NO. 5 .... TIMEP
         STATE ..... SOLID
         DENSITY ...... 116.00 LBS/CU. FT.
         ATTRIBUTES ..... METAL
         ELEMENTS PRESENT .. FE, NI
         COMPOSITION .....
         GENERATION DATA ...
                 NO. OF MEN
                                     RATE(LBS/YEAR)
                   12
                                           2.00
                   50
                                           7.00
                  100
                                          12.00
         RECLAMATION ACTION .. REPAIR ON BOARD
```

** EQUIPMENT/EXPERIMENT NO. 1CO2 REMOVAL/CONCENTRATION SYSTEM

\$\frac{1}{4} \times \

DENSITY 30C.00 LBS/CU. FT.

ATTRIBUTES METAL ELEMENTS PRESENT .. FE, CU

COMPOSITION GENERATION DATA ...

NJ. OF MEN RATE(LBS/YEAR)

12 2.00

50 8.00

100 16.00

PECLAMATION ACTION .. REPAIR ON BOARD

**** ** WASTE ITEM NO. 7 COMPRESSOR

STATE SOLID

DENSITY 300.00 LBS/CU. FT.

ATTRIBUTES METAL ELEMENTS PRESENT .. FE, AL COMPOSITION

GENERATION DATA ...

NO. OF MEN RATE(LBS/YEAR)
12 2.00

50 8.00 100 16.00

RECLAMATION ACTION .. REPAIR ON BOARD

***** WASTE ITEM NO. 8 WATER REGULATOR

STATE SOLID

DENSITY 520.00 LBS/CU. FT.

ATTRIBUTES METAL ELFMENTS PRESENT .. FE, NI

CCMPOSITION GENERATION DATA ...

NO. OF MEN RATE(LBS/YEAR)

12 0.10 50 0.40 100 0.80

RECLAMATION ACTION ..

```
S/C SUBSYSTEM .... CARBON DIOXIDE CONTROL AND OXYGEN GENERATION
   GROUP KEY ..... 1.5.6
** EQUIPMENT/EXPERIMENT NO. 1 .....CO2 REMOVAL/CONCENTRATION SYSTEM
*** WASTE SOURCE NO. 1 .... CO2 REMOVAL/CONCENTRATION SYSTEMS
**** WASTE ITEM NO. 9 .... CHECK VALVE
        STATE ..... SOLID
        DENSITY ..... 20.00 LBS/CU. FT.
        ATTRIBUTES ..... RUBBER
        ELEMENTS PRESENT ..
        COMPOSITION ..... BUTYL
        GENERATION DATA ...
                NO. OF MEN
                                    RATE(LBS/YEAR)
                  12
                                          0.03
                                          0.12
                  50
                                          0.24
                 100
        RECLAMATION ACTION .. REPLACE SEAL
**** WASTE ITEM NO. 10 .... CARBON DIOXIDE
        STATE ..... GAS
        DENSITY ..... G.11 LBS/CU. FT.
        ATTRIBUTES .... CO2
        ELEMENTS PRESENT ..
        COMPOSITION ..... BUTYL
        GENERATION DATA ...
                                   RATE(LBS/YEAR)
                NO. OF MEN
                . 12
                                       9000.00
                                      37500.00
                  50
                                      75000.00
                 100
        RECLAMATION ACTION .. REDUCE
```

```
S/C SUBSYSTEM .... CARBON DICXIDE CONTROL AND DXYGEN GENERATION
   GROUP KEY .... 1.5.6
** EQUIPMENT/EXPERIMENT NO. 2 ..... CO2 REDUCTION SYSTEM
         S/C AREAS ..... EQUIPMENT
*** WASTE SOURCE NO. 1 .... CO2 REDUCTION SYSTEM.
         DOCUMENT NO. ..... 1.5.6.2.1*
*** WASTE ITEM NO. 1 .... HUPIDIFIER
         STATE ..... SOLID
         DENSITY ..... 95.00 LBS/CU. FT.
         ATTRIBUTES ..... METAL
         ELEMENTS PRESENT .. ALUMINUM
         COMPOSITION .....
         GENERATION DATA ...
                 NO. OF ∢EN
                                      RATE(LBS/YEAR)
                   12-
                                           3.00
                   50
                                           12.00
                  100
                                           24.00
         RECLAMATION ACTION .. REPLACE WICKING
**** WASTE ITEM NO. 2 .... HEATER CONTROL
         STATE ..... SOLID
DENSITY ..... 225.00 LBS/CU. FT.
         ATTRIBUTES ..... METAL
         ELEMENTS PRESENT .. FE, CU
         COMPOSITION .....
         GENERATION DATA ...
                 NO. OF MEN
                                      RATE(1BS/YEAR)
                   12
                                            2.00
                   50
                                            6.00
                  100
                                           10.00
         RECLAMATION ACTION .. REPAIR ON BOARD
**** WASTE ITEM NO. 3 .... MAIN CONTROL
         STATE ..... SCLID
         DENSITY ..... 200.00 LBS/CU. FT.
         ATTRIBUTES ..... METAL
         ELEMENTS PRESENT .. FE, CU
         COMPOSITION .....
         GENERATION DATA ...
                 NO. OF MEN
                                      RATE(LBS/YEAR)
                   12
                                            2.00
                   50
                                            6.00
                  100
                                           10.00
         RECLAMATION ACTION .. REPAIR ON BOARD
```

```
S/C SUBSYSTEM .... CARBON DIOXIDE CONTROL AND OXYCEN GENERATION
    GROUP KEY ..... 1.5.6
** EQUIPMENT/EXPERIMENT NO. 2 .....CO2 REDUCTION SYSTEM
**** WASTE SOURCE NO. 1 .... CD2 REDUCTION SYSTEM
**** WASTE ITEM NO. 4 ... ELECTROLYTE MODULES
         STATE ..... SOLID
         DENSITY ..... 285.00 LBS/CU. FT.
         ATTRIBUTES ..... METAL
         ELEMENTS PRESENT .. FE, NI,
         COMPOSITION ..... CERAMIC
         GENERATION DATA ...
                 NO. OF MEN
                                     RATE(LBS/YEAR)
                  12
                                          45.00
                   50
                                         150.00
                  100
                                         300.00
         RECLAMATION ACTION .. N/R
**** WASTE ITEM NO. 5 ... HYDROGEN SEPARATOR
         STATE ..... SOLID
         DENSITY ..... 165.00 LBS/CU. FT.
         ATTRIBUTES ..... METAL
         ELEMENTS PRESENT .. AL, PD
         COMPOSITION .....
         GENERATION DATA ...
                 NO. OF MEN
                                     RATE(LBS/YEAR)
                  12
                                          10.00
                   50
                                          35.00
                  100
                                          80.00
         RECLAMATION ACTION .. N/R
**** WASTE ITEM NO. 6 ... HEAT EXCHANGER
         STATE ..... SOLID
         DENSITY ..... 125.00 LBS/CU. FT.
         ATTRIBUTES ..... METAL
         ELEMENTS PRESENT .. AL, FE, NI
         CCMPOSITION .....
         GENERATION DATA ...
                 NO. OF MEN
                                     RATE(LBS/YEAR)
                  12
                                          7.00
                   50
                                          21.00
                  100
                                          42.00
         RECLAMATION ACTION .. N/R
```

```
S/C 3UBSYSTEM .... CARBON DIOXIDE CONTROL AND OXYGEN GENERATION
    GROUP KEY .... 1.5.6
** EQUIPMENT/EXPERIMENT NO. 2 .....CO2 REDUCTION SYSTEM
**** WASTE SOURCE NO. 1 .... CO2 REDUCTION SYSTEM
**** WASTE ITEM NO. 7 .... COMPRESSOR
         STATE ..... SOLID
         DENSITY ..... 30C.00 LBS/CU. FT.
         ATTRIBUTES .... METAL
         ELEMENTS PRESENT .. FE; NI
         COMPOSITION .....
         GENERATION DATA ...
                 NO. OF MEN
                                     RATE(LBS/YEAR)
                   12
                                           8.00
                   50
                                          16.00
                                          32.00
         RECLAMATION ACTION .. REPAIR ON BOARD
★★★★ ₩ASTE ITEM NO. 8 .... CATALYST CARTRIDGES
         STATE ..... SOLID
         DENSITY ..... 150.00 LBS/CU. FT.
         ATTRIBUTES ..... METAL
         ELEMENTS PRESENT ..
         CCMPOSITION ..... CATALYTIC AGENT
         GENERATION DATA ...
                 NO. OF MEN
                                      RATE(LBS/YEAR)
                   12
                                          50.00
                   50
                                         200.00
                  100
                                         400.00
        -RECLAMATION ACTION .. REPLACE
***** WASTE ITEM NO. 9 .... 4 WAY VALVES
         STATE ..... SOLID
         DENSITY ..... 280.00 LBS/CU. FT.
         ATTRIBUTES ..... METAL
         ELEMENTS PRESENT .. FE, NI
         COMPOSITION .....
         GENERATION DATA ...
                 NO. OF MEN
                                      RATE(LBS/YEAR)
                   12
                                           5.00
                   50
                                          20.00
                  100
                                          40.00
         RECLAMATION ACTION .. REPAIR ON BOARD
```

```
S/C SUBSYSTEM .... CARBON DIOXIDE CONTROL AND OXYGEN GENERATION
   GROUP KEY ..... 1.5.6
** EQUIPMENT/EXPERIMENT NO. 2 .........CO2 REDUCTION SYSTEM
**** WASTE SOURCE NO. 1 ... CC2 REDUCTION SYSTEM
***** WASTE ITEM NO. 10 .... CHECK VALVE
         STATE ..... SOLID
         DENSITY ..... 2C.00 LBS/CU. FT.
         ATTRIBUTES .... METAL
         ELEMENTS PRESENT ..
        LYTUB ..... BUTYL
         GENERATION DATA ...
                 NO. OF MEN
                                    RATE(LBS/YEAR)
                  12
                                          0.03
                  50
                                          0.12
                 100
                                          0.24
         RECLAMATION ACTION ..
**** WASTE ITEM NO._11 .... CO2 REGULATOR
         STATE ..... SGLID
         DENSITY ..... 250.00 LBS/CU. FT.
         ATTRIBUTES .... METAL
         ELEMENTS PRESENT .. AL, FE, NI
         COMPOSITION .....
         GENERATION DATA ...
                 NO. OF MEN
                                     RATE(LBS/YEAR)
                  12
                                          0.10
                  50
                                          0.40
                  100
                                          0.80
        RECLAMATION ACTION .. REPAIR ON BOARD
**** WASTE ITEM NO. 12 .... CXYGEN
         STATE ..... GASEOUS
         DENSITY ..... C.O7 LBS/CU. FT.
         ATTRIBUTES .... AMBIENT
         ELEMENTS PRESENT .. C2
         COMPOSITION .....
         GENERATION DATA ...
                 NO. OF MEN
                                     RATE(LBS/YEAR)
                  12
                                        7000.00
                  50
                                       29000.00
                  100
                                       57000.00
        RECLAMATION ACTION .. CUMP TO CABIN
```

```
S/C SURSYSTEM .... CARBON DIOXIDE CONTROL AND OXYGEN GENERATION
   3ROUP KEY .... 1.5.6
** E QUIPMENT/EXPERIMENT NO. 2 .....CO2 REDUCTION SYSTEM
**** WASTE SOURCE NO. 1 .... CO2 REDUCTION SYSTEM
***** WASTE ITEM NO. 13 .... CAPBON
        STATE ..... SOLID
        DENSITY ..... 50.00 LBS/CU. FT.
        ATTRIBUTES .... CHUNKS
        ELEMENTS PRESENT .. C
        COMPOSITION .....
        GENERATION DATA ...
                NO. OF MEN
                                    RATE(LBS/YEAR)
                  12
                                       2220.00
                  50
                                       9000.00
                                      18000.00
                 100
        RECLAMATION ACTION .. N/R
**** WASTE ITEM NO. 14 .... HYDROGEN
         STATE ..... GASEOUS
        DENSITY ..... C.OO LBS/CU. FT.
        ATTRIBUTES ..... AMBIENT
        ELEMENTS PRESENT .. H2
        COMPOSITION .....
        GENERATION DATA ...
                NO. OF MEN
                                   RATE(LBS/YEAR)
                  12
                                        45.00
                  50
                                        180.00
                 100
                                        360.00
        RECLAMATION ACTION .. N/R
```

```
S/C SUBSYSTEM .... CARBON DIOXICE CONTROL AND OXYGEN GENERATION
    GROUP KEY .... 1.5.6
** EQUIPMENT/EXPERIMENT NO. 3 ..... WATER ELECTROLYSIS SYSTEM
         S/C AREAS ......
**** WASTE SOURCE NO. 1 ... WATER ELECTROLYSIS
         DOCUMENT NO. ..... 1.5.6.3.1*
**** WASTE ITEM NO. 1 ... EVAPORATOR
         STATE ..... SOLID
         DENSITY ..... 95.00 LBS/CU. FT.
         ATTRIBUTES .... METAL
         ELEMENTS PRESENT .. ALLMINUM
         COMPOSITION .....
         GENERATION DATA ...
                 NO. OF MEN
                                     RATE(LBS/YEAR)
                   12
                                           3.00
                   50
                                           12.00
                  100
                                           24.00
         RECLAMATION ACTION .. REPLACE WICKING
**** WASTE ITEM NO. 2 .... STARTUP HEATER ASSEMBLY
         STATE ...... SCLID
DENSITY ...... 225.00 LBS/CU. FT.
         ATTRIBUTES .... METAL
         ELEMENTS PRESENT .. FE, CU
         COMPOSITION .....
         GENERATION DATA ...
                 NO. OF MEN
                                     RATE(LBS/YEAR)
                   12
                                            2.00
                                            6.00
                   50
                  100
                                           10.00
         RECLAMATION ACTION ..
***** WASTE ITEM NO. 3 ... ELECTROLYTIC MODULE
         STATE ..... SOLID
         DENSITY ...... 13C.00 LBS/CU. FT.
         ATTRIBUTES .... METAL
         ELEMENTS PRESENT .. FE, NI
         CEMPOSITION .....
         GENERATION DATA ...
                 NO. OF MEN
                                      RATE(LBS/YEAR)
                   12
                                            5.00
                   50
                                           20.00
                  100
                                           40.00
         RECLAMATION ACTION .. N/R
```

```
S/C 3UBSYSTEM .... CARBON DIOXICE CONTROL AND DXYGEN GENERATION
   GROUP, KEY ..... 1.5.6
** E JUIPMENT/EXPERIMENT NO. 3 ..... WATER ELECTROLYSIS SYSTEM
*** WASTE SCURCE NO. 1 .... WATER ELECTROLYSIS
**** WASTE ITEM NO. 4 .... FAN
        STATE ..... SOLID
        DENSITY ..... 25C.00 LBS/CU. FT.
        ATTRIBUTES ..... METAL
        FLEMENTS PRESENT .. FE, CU
        COMPOSITION .....
        GENERATION DATA ...
                NO. OF YEN
                                RATE(LBS/YEAR)
                                        1.00
                 12
                                        3.00
                 50
                                        5.00
                 100
        RECLAMATION ACTION .. REPAIR ON BOARD
```

```
S/C SUBSYSTEM .... THERMAL TRANSPORT CIRCUIT
   GROUP KEY ..... 1.5.7
BASIC FUNCTION ..... SUPPORT LIFE
        FUNCTIONAL REQUIREMENT .... ENVIRONMENTAL CONTROL/LIFE SUPPO
                                 RT
** EQUIPMENT/EXPERIMENT NO. 1 ..... COOLANT LOOP
        S/C AREAS ..... EQUIPMENT
**** WASTE SOURCE NO. 1 .... COCLANT LOOP
        DOCUMENT NO. ..... 1.5.7.1.1*
***** WASTE ITEM NO. 1 ... BYPASS VALVE CONTROL
         STATE ..... SOLID
        DENSITY ..... 20C.00 LBS/CU. FT.
        ATTRIBUTES ..... METAL
        ELEMENTS PRESENT .. FE, CU, NI
        COMPOSITION .....
        GENERATION DATA ...
                 NO. OF MEN
                                     RATE(LBS/YEAR)
                  12
                                          2.00
                  50
                                          8.00
                 100
                                          16.00
        RECLAMATION ACTION .. REPAIR ON BOARD
*** *** WASTE ITEM NO. 2 ... BYPASS VALVE
         STATE ..... SOLID
        DENSITY ..... 280.00 LBS/CU. FT.
         ATTRIBUTES .... METAL
        ELEMENTS PRESENT .. FE, CU
        COMPOSITION .....
         GENERATION DATA ...
                 NO. OF MEN
                                    RATE(LBS/YEAR)
                  12
                                          5.00
                  50
                                          20.00
                  100
                                          40.00
        RECLAMATION ACTION .. REPAIR ON BOARD
```

```
S/C SUBSYSTEM .... WATER MANAGEMENT
    3RAUP KEY .... 1.5.8
RASIC FUNCTION ...... SUPPORT LIFE
         FUNCTIONAL REQUIREMENT .... ENVIRONMENTAL CONTROL/LIFF SUPPO
                                   RT
* COUIPMENT/EXPERIMENT NO. 1 ..... WATER RECLAMATION SYSTEM
         S/C AREAS ..... EQUIPMENT
**** WASTE SOURCE NO. 1 .... WATER RECLAMATION SYSTEM
         DUCUMENT NO. ..... 1.5.8.1.1*
         REFERENCE NO. 1 .. METZGER, C. HEARLD, A.B. MC MULLEN, B. MATE
                           R RECOVERY FROM HUMAN WASTE DURING PROLO
                            NGED CONFINEMENT. TECH. REP. AMRL-TR-65-170
                            , AEROSPACE MEDICAL PESEARCH LABS., APRIL
***** WASTE ITEM NO. 1 .... HEATER CONTROL
         STATE ..... SOLID
         DENSITY ..... 280.00 LBS/CU. FT.
         ATTRIBUTES ..... METAL
         ELEMENTS PRESENT .. FE, CU, NI
         COMPOSITION .....
         GENERATION DATA ...
                 NO. OF MEN
                                       RATE(LBS/YEAR)
                   12
                                            2.00
                   50
                                            8.00
                  100
                                           16.00
        -RECLAMATION ACTION .. REPAIR ON BOARD
***** WASTE ITEM NO. 2 .... CONDUCTIVITY SENSOR
         STATE ..... SOLID
         DENSITY ..... 80.00 LBS/CU. FT.
         ATTRIBUTES ..... PLASTIC
         ELEMENTS PRESENT .. FE, CU
         CGMPOSITION ..... PHENCLIC
         GENERATION DATA ...
                 NO. OF MEN
                                       RATE(LBS/YEAR)
                   12
                                            1.00
                   50
                                            4.00
                  100
                                            8.00
         RECLAMATION ACTION .. REPAIR ON BOARD
```

```
S/C SUBSYSTEM .... WATER MANAGEMENT
           GROUP KEY ..... 1.5.8
** EQUIPMENT/EXPERIMENT NO. 1 .....WATER RECLAMATION SYSTEM
**** WASTE SOURCE NO. 1 .... WATER RECLAMATION SYSTEM
$\frac{x}{x}$\frac{x}{x}$\frac{x}{x}$\frac{x}{x}$\frac{x}{x}$\frac{x}{x}$\frac{x}{x}$\frac{x}{x}$\frac{x}{x}$\frac{x}{x}$\frac{x}{x}$\frac{x}{x}$\frac{x}{x}$\frac{x}{x}$\frac{x}{x}$\frac{x}{x}$\frac{x}{x}$\frac{x}{x}$\frac{x}{x}$\frac{x}{x}$\frac{x}{x}$\frac{x}{x}$\frac{x}{x}$\frac{x}{x}$\frac{x}{x}$\frac{x}{x}$\frac{x}{x}$\frac{x}{x}$\frac{x}{x}$\frac{x}{x}$\frac{x}{x}$\frac{x}{x}$\frac{x}{x}$\frac{x}{x}$\frac{x}{x}$\frac{x}{x}$\frac{x}{x}$\frac{x}{x}$\frac{x}{x}$\frac{x}{x}$\frac{x}{x}$\frac{x}{x}$\frac{x}{x}$\frac{x}{x}$\frac{x}{x}$\frac{x}{x}$\frac{x}{x}$\frac{x}{x}$\frac{x}{x}$\frac{x}{x}$\frac{x}{x}$\frac{x}{x}$\frac{x}{x}$\frac{x}{x}$\frac{x}{x}$\frac{x}{x}$\frac{x}{x}$\frac{x}{x}$\frac{x}{x}$\frac{x}{x}$\frac{x}{x}$\frac{x}{x}$\frac{x}{x}$\frac{x}{x}$\frac{x}{x}$\frac{x}{x}$\frac{x}{x}$\frac{x}{x}$\frac{x}{x}$\frac{x}{x}$\frac{x}{x}$\frac{x}{x}$\frac{x}{x}$\frac{x}{x}$\frac{x}{x}$\frac{x}{x}$\frac{x}{x}$\frac{x}{x}$\frac{x}{x}$\frac{x}{x}$\frac{x}{x}$\frac{x}{x}$\frac{x}{x}$\frac{x}{x}$\frac{x}{x}$\frac{x}{x}$\frac{x}{x}$\frac{x}{x}$\frac{x}{x}$\frac{x}{x}$\frac{x}{x}$\frac{x}{x}$\frac{x}{x}$\frac{x}{x}$\frac{x}{x}$\frac{x}{x}$\frac{x}{x}$\frac{x}{x}$\frac{x}{x}$\frac{x}{x}$\frac{x}{x}$\frac{x}{x}$\frac{x}{x}$\frac{x}{x}$\frac{x}{x}$\frac{x}{x}$\frac{x}{x}$\frac{x}{x}$\frac{x}{x} \frac{x}{x} \frac
***** WASTE ITEM NO. 3 .... HEATING UNIT
                            STATE ..... SOLID
                            DENSITY ..... 300.00 LBS/CU. FT.
                            ATTRIBUTES ..... CERAMIC
                            ELEMENTS PRESENT .. NI
                            COMPOSITION ..... CERAMIC
                            GENERATION DATA ...
                                                     NO. OF MEN
                                                                                                                      RATE(LBS/YEAR)
                                                                                                                                       1.00
                                                          12
                                                                                                                                       4.00
                                                           50
                                                                                                                                       8.00
                                                        100
                            RECLAMATION ACTION .. N/R
**** WASTE ITEM NO. 4 .... PRESSURE REGULATOR
                            STATE ...... SOLID
                             DENSITY ...... 550.00 LBS/CU. FT.
                             ATTRIBUTES ..... METALIC
                             ELEMENTS PRESENT .. AL
                             COMPOSITION ..... STAINLESS STEEL
                             GENERATION DATA ...
                                                      NO. OF MEN
                                                                                                                      RATE(LBS/YEAR)
                                                           12
                                                                                                                                       0.10
                                                                                                                                       0.40
                                                           50
                                                         100
                                                                                                                                       08.0
                            RECLAMATION ACTION .. REPAIR ON BOARD
***** WASTE ITEM NO. 5 .... SOLIDS SENSOR
                             STATE ..... SOLID
                             DENSITY ...... 80.00 LBS/CU. FT.
                             ATTRIBUTES ..... PLASTIC
                             ELEMENTS PRESENT .. FE, CU
                             COMPOSITION ..... PHENOLIC
                             GENERATION DATA ...
                                                      NO. OF MEN
                                                                                                                      RATE(LBS/YEAR)
                                                           12
                                                                                                                                       1.28
                                                           50
                                                                                                                                       5.00
                                                         100
                                                                                                                                     10.00
```

RECLAMATION ACTION .. REPAIR ON BOARD

```
S/C BURSYSTEM .... WATER MANAGEMENT
    ROUP KEY ..... 1.5.8
** FOUIPYENT/EXPERIMENT NO. 1 ..... NATER RECLAPATION SYSTEM
*** WASTE SOURCE NO. 1 ... WATER RECLAMATION SYSTEM
***** WASIE ITEM NO. 6 .... PRESSURE SEALS
         STATE ..... SOLID
         DENSITY ..... 2C. 00 LBS/CU. FT.
         ATTRIBUTES .... RUBPER
         ELEMENTS PRESENT ..
         COMPOSITION ..... BUTYL
         GENERATION DATA ...
                               RATE(LBS/YEAR)
                 NO. OF MEN
                   12
                                           0.03
                   50
                                           0.13
                  100
                                           0.30
         RECLAMATION ACTION .. N/R
***** WASTE ITEM NO. 7 .... SOLENOID VALVE STATE ..... SOLID
         DENSITY ..... 28C.00 LBS/CU. FT.
         ATTRIBUTES .... METAL
         ELEMENTS PRESENT .. FE, CU
         COMPOSITION .....
         GENERATION DATA ...
                 NO. OF MEN
                                     RATE(LBS/YEAR)
                   12
                                           5.00
                   50
                                          20.00
                                          40.00
                  100
         RECLAMATION ACTION .. REPAIR ON BOARD
**** WASTE ITEM NO. 8 ... BACTERIAL FILTER CANISTER
         STATE ..... SOLID
         DENSITY ..... 30.00 LBS/CU. FT.
         ATTRIBUTES .... METAL CYLINDER
         ELFMENTS PRESENT ..
         COMPOSITION ..... FLCURINATED PLASTIC COMPGUND
         GENERATION DATA ...
                 NO. OF MEN
                                     RATE(LBS/YEAR)
                   12
                                           6.00
                                          11.00
                   50
                                          22.00
                  100
         RECLAMATION ACTION .. RECHAPGE
```

```
S/C SUBSYSTEM .... WATER MANAGEMENT
   GROUP KEY .... 1.5.8
** EQUIPMENT/EXPERIMENT NO. 1 ..... WATER RECLAMATION SYSTEM
*** WASTE SOURCE NO. 1 ... WATER RECLAMATION SYSTEM
***** WASTE ITEM NO. 9 .... CHARCOAL CANISTER
        STATE ...... SGLID
        DENSITY ..... 66.00 LBS/CU. FT.
        ATTRIBUTES ..... METAL CYLINDER
        ELEMENTS PRESENT ..
        COMPOSITION ..... ACTIVATED CHARCOAL
        GENERATION DATA ...
                NO. OF MEN
                                    RATE(LBS/YEAR)
                  12
                                        150.00
                  50
                                        500.00
                 100
                                       1000.00
        RECLAMATION ACTION .. REFILL
***** WASTE ITEM NO. 10 ... WASTE CONCENTRATE
        STATE ..... LICUID
        DENSITY ..... 64.00 LBS/CU. FT.
        ATTRIBUTES ..... FLUID
        ELEMENTS PRESENT ..
        COMPOSITION ..... URINE RESIDUUM
        GENERATION DATA ...
                NO. OF MEN
                                    RATE(LBS/YEAR)
                  12
                                       1490.00
                  50
                                       6200.00
                 100
                                      12400.00
       RECLAMATION ACTION .. N/R
```

```
S/C SURSYSTEM .... WATER MANAGEMENT
    GROUP KEY ..... 1.5.8
** []UIPMENT/EXPERIMENT NO. 2 ..... POTABLE WATER STORAGE SYSTEM
         S/C AREAS ..... EQUIPMENT
149 % WASTE SOURCE NO. 1 ... PCTABLE WATER STOPAGE
         DOCUMENT NO. ..... 1.5.8.2.1*
         REFERENCE NO. 1 .. FEINDLER, K FILTEPING SYSTEM FOR AEROSPAC
                            E VATER RECLAIMATION. TECH REP. AMRL-TR-67
                           -157, AEROSPACE MEDICAL RESEARCH LAB., DE
                           C. 1967.
         REFERENCE NO. 2 .. METZGER, C. HEARLD, A.B. MC MULLEN, R. EVAL
                           UATIONOF WATER RECLAIMATION SYSTEMS AND
                            ANALYSIS OF RECOVERED WATER FOR HUMAN CO
                            NSLMPTION, TECH. REP. AMRL-TR-65-37, AMRL, FE
**** WASTE ITEM NO. 1 .... PRESSURE SEALS
         STATE ..... SOLID
         DENSITY .....
                           8C.OO LBS/CU. FT.
         ATTRIBUTES .... PLASTIC
         ELEMENTS PRESENT .. CU.FE
         CGMPOSITION ..... PHENOLIC
         GENERATION DATA ...
                 NO. OF MEN
                                       RATE(LBS/YEAR)
                   12
                                            1.00
                   50
                                            3.20
                  100
                                            4.40
         RECLAMATION ACTION .. N/R
**** WASTE ITEN NO. 2 .... CAPACITY CENTROL
         STATE .....
         DENSITY ......
                             G.OO LBS/CU. FT.
         ATTRIBUTES ......
         ELEMENTS PRESENT ..
         COMPOSITION .....
         GENERATION DATA ...
                 NO. OF MEN
                                      RATE(LBS/YEAR)
                   12
                                            0.00
                   50
                                            0.00
                  100
                                            0.00
         RECLAMATION ACTION ..
```

```
S/C SUBSYSTEM .... WATER MANAGEMENT
    GROUP KEY .... 1.5.8
** EQUIPMENT/FXPERIMENT NO. 2 .....POTABLE WATER STCRAGE SYSTEM
*** WASTE SOURCE NO. 1 .... POTABLE WATER STORAGE
***** WASTE ITEM NO. 3 .... SOLENOID VALVE
         STATE ..... SOLID
         DENSITY ..... 28C.00 LBS/CU. FT.
         ATTRIBUTES .... PETAL
         ELEMENTS PRESENT .. FE, CU
         CCMPOSITION .....
         GENERATION DATA ...
                 NO. OF MEN
                                     RATE(LBS/YEAR)
                  12
                                           5.00
                   50
                                          15.00
                  100
                                          22.50
         RECLAMATION ACTION .. REPAIR ON BOARD
***** VASTE ITEM NO. 4 ... HEATER SENSOR/CONTROL
         STATE ..... SOLID
         DENSITY ...... 280.00 LBS/CU. FT.
         ATTRIBUTES .... METAL
         ELEMENTS PRESENT .. FE, CU, NI
         COMPOSITION .....
         GENERATION DATA ...
                 NO. OF MEN
                                     RATE(LBS/YEAR)
                  12
                                           0.70
                   50
                                           2.10
                  100
                                           3.20
        PECLAMATION ACTICA .. REPAIR ON BOARD
**** WASTE ITEM NO. 5 .... FILTER, BACTERIAL
         STATE ..... NEMBRANE
         DENSITY ...... 30.00 LBS/CU. FT.
         ATTRIBUTES .... SHEET
         ELFMENTS PRESENT ...
         COMPOSITION ..... FLCURINATED PLASTIC COMPCUND
         GENERATION DATA ...
                 NO. OF MEN
                                     RATE(LBS/YEAR)
                  12
                                          1.60
                   50
                                           6.70
                  100
                                          13.50
        RECLAMATION ACTION .. N/R
```

S/C BURSYSTEM PATER MANAGEMENT BROUP KEY 1.5.8

**** * 'JASTE ITE'S NO. 6 ... HEATER ELEMENT
STATE SCLID
DENSITY 30C.00 LBS/CU. FT.
ATTRIBUTES CERANIC
ELEMENTS PRESENT .. NI
COMPOSITION CERAMIC MATERIAL

GENERATION DATA ...

NO. OF MEN RATE(LB:

RECLAMATION ACTION .. N/R

**** WASTE ITEM NO. 7 PACKAGING

STATE SCLIP

DENSITY 5.00 LBS/CU. FT.

ATTRIBUTES PLASTIC SPONGY

ELEMENTS PRESENT ..

CCMPOSITION STYROFDAM

GENERATION DATA ...

NO. OF MEN RATE(LRS/YEAR)

12 1.00

50 3.00

100 5.00

RECLAMATION ACTION .. REUSE AS IS

MAINTAIN SPACECRAFT FUNCTIONS

CONTROL SPACECRAFT ORBIT POSITION AND ATTITUDE

S/C SUBSYSTEM NAV. GUID., STABILIZATION AND CONTROL GROUP KEY 2.1.1

BASIC FUNCTION MAINTAIN S/C FUNCTION FUNCTIONAL REQUIREMENT CENTROL SPACECRAFT ORBIT POSITION ATTITUDE AND MOTION

** EQUIPMENT/EXPERIMENT NO. I ELECTRONIC SYSTEMS

S/C AREAS COMMUNICATIONS
EXTRA VEHICULAR

**** WASTE SOURCE NO. 1 ELECTRONICS SYSTEM

DOCUMENT NO. 2.1.1.1.1*

REFERENCE NO. 1 .. TECHNICAL DESCRIPTION H-429 GUIDANCE AND NAVIGATION SYSTEM, HONEYWELL AEROSPACE DIVISION, ST. PETERSBUR, FLORIDA.

REFERENCE NO. 2 .. LEAR SIEGLER PUBLICATIONS NO. GRP-011-05 69-IIB, INERTIAL NAVIGATION ELEMENT, F-1 5 AVIONICS SYSTEM.

REFERENCE NO. 3 .. FAIRCHILD HILLER ATS-FEG PROPOSAL.

REFERENCE NO. 4 .. BENDIX CORPORATION NAVIGATION & CONTROL DIVISION, DAD STAR TRACKER PROGRAM N'69-3 9788, NASA CR10695.

***** WASTE ITEM NO. 1 FAILED POWER SUPPLY PACKAGE

STATE SOLID

DENSITY 77.00 LBS/CU. FT.

ATTRIBUTES METAL

ELEMENTS PRESENT .. CU, FE, AL, SI

COMPOSITION

GENERATION DATA ... QUANTITY (LBS)

10 YR. TOTAL 30.60
DAILY RATE 0.00
UNIT WEIGHT 25.00

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S/C SUBSYSTEM .... NAV. GUID., STABILIZATION AND CONTROL
   GROUP KEY .... 2.1.1
** EQUIPMENT/EXPERIMENT NO. 1 .....ELECTRONIC SYSTEMS
**** WASTE SOURCE NO. 1 .... ELECTRONICS SYSTEM
***** WASTE ITEM NO. 2 .... FAILED COMPUTER
         STATE ..... SOLID
         DENSITY ..... 52.00 LBS/CU. FT.
         ATTRIBUTES .... METAL
         ELEMENTS PRESENT .. CU, FE, AL, SI
         COMPOSITION .....
         GENERATION DATA ...
                                        QUANTITY (LBS)
                  10 YR. TOTAL
                                         226.80
                  DAILY RATE
                                          0.00
                  UNIT WEIGHT
                                         35.00
         RECLAMATION ACTION .. REPAIR
***** WASTE ITEM NO. 3 .... FAILED SENSOR MOUNTING BLOCK
         STATE ..... SOLID
         DENSITY ..... 80.00 LBS/CU. FT.
         ATTRIBUTES .... METAL
         ELEMENTS PRESENT .. CU, FE, AL, SI
         COMPOSITION .....
         GENERATION DATA ...
                                        QUANTITY (LBS)
                 10 YR. TOTAL
                                        115.60
                  DATLY RATE
                                          0.00
                  UNIT WEIGHT
                                          40.00
         RECLAMATION ACTION .. REPAIR
***** WASTE ITEM NO. 4 .... FAILED PLATFORM ELECTRONICS
         STATE .... SOLID
         DENSITY ..... 52.00 LBS/CU. FT.
         ATTRIBUTES .... METAL
         ELEMENTS PRESENT .. CU, FE, AL, SI
         COMPOSITION .....
                                        QUANTITY (LBS)
         GENERATION DATA ...
                  10 YR. TOTAL
                                          14.90
                                          0.00
                  DAILY RATE
                  UNIT WEIGHT
                                         10.00
         RECLAMATION ACTION .. REPAIR
```

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S/C SUBSYSTEM .... NAV. GUID., STABILIZATION AND CONTROL
   GROUP KEY .... 2.1.1
** EQUIPMENT/EXPERIMENT NO. 1 .....ELECTRONIC SYSTEMS
**** WASTE SOURCE NO. 1 ... ELECTRONICS SYSTEM
***** WASTE ITEM NO. 5 .... FAILED STAR TRACKER MECHANICAL ASSEMBLY
         STATE ..... SOLID
         DENSITY ..... 44.00 LBS/CU. FT.
         ATTRIBUTES ..... METAL
         ELEMENTS PRESENT .. CU, FE, AL, SI
         COMPOSITION ..... SIC2
         GENERATION DATA ...
                                        QUANTITY (LBS)
                  10 YR. TOTAL
                                          48.00
                  DAILY RATE
                                          0.00
                  UNIT WEIGHT
                                          25.00
         RECLAMATION ACTION .. REPAIR
****** WASTE ITEM NO. 6 ... FAILED STAR TRACKER ELECTRONICS
         STATE .... SOLID
         DENSITY ..... 42.00 LAS/CU. FT.
         ATTRIBUTES ..... METAL
         ELEMENTS PRESENT .. CU, FE, AL, SI
         COMPOSITION .....
         GENERATICY DATA ...
                                        QUANTITY (LBS)
                  10 YR. TOTAL
                                          13.40
                  DAILY RATE
                                          0.00
                  UNIT WEIGHT
                                          14.00
         RECLAMATION ACTION .. REPAIR
****** WASTE ITEM NO. 7 .... FAILED HORIZON SCANNER MECHANICAL ASSY
         STATE ..... SOLID
         DFNSITY ..... 44.00 LBS/CU. FT.
         ATTRIBUTES ..... METAL
         ELEMENTS PRESENT .. CU, FE, AL, SI
         COMPOSITION ..... SIC2
         GENERATION DATA ...
                                        QUANTITY (LBS)
                  10 YR. TOTAL
                                          48 = 00
                  DAILY RATE
                                           0.00
                  UNIT WEIGHT
                                          25.00
         RECLAMATION ACTION .. REPAIR
```

S/C SUBSYSTEM NAV. GUID., STABILIZATION AND CONTROL GROUP KEY 2.1.1

**** ** WASTE ITEM NO. 8 FAILED HORIZON SCANNER ELECTRONICS STATE SOLID

DENSITY 77.00 LBS/CU. FT.

ATTRIBUTES METAL

ELEMENTS PRESENT .. CU, FE, AL, SI

COMPOSITION

GENERATION DATA ... QUANTITY (LBS)

 10 YR. TOTAL
 30.60

 DAILY RATE
 0.00

 UNIT WEIGHT
 25.00

RECLAMATION ACTION .. REPAIR

***** WASTE ITEM NO. 9 ... PACKAGING FOR REPLACEMENT PARTS

STATE SOLID

DENSITY 5.00 LBS/CU. FT.

ATTRIBUTES PLASTIC

ELEMENTS PRESENT ...

COMPOSITION PLASTIC SPONGE, SHEETING

GENERATION DATA ... QUANTITY (LBS)

10 YR. TOTAL 0.00 DAILY RATE 0.00 UNIT WEIGHT 0.00

RECLAMATION ACTION .. REUSE AS IS

S/C SUBSYSTEM NAV. GUID., STABILIZATION AND CONTROL GROUP KEY 2.1.1 ** EQUIPMENT/EXPERIMENT NO. 2 MECHANICAL SYSTEMS S/C AREAS CONTROL EQUIPMENT EXTRA VEHICULAR **** WASTE SOURCE NO. 1 CENTROL MOMENT GYRDS DOCUMENT NO. 2.1.1.2.1 REFERENCE NO. 1 .. NASA, SPACE STATION RFP. REFERENCE NO. 2 .. MIL-HDBK-217A (DEC. 1, 1965) RELIABILITY STRESS AND FAILURE RATE DATA FOR ELECTR GNIC EQUIPMENT. **** WASTE ITEM NO. 1 FAILED CMG GYRO STATE SOLID DENSITY 25C.00 LBS/CU. FT. ATTRIBUTES METAL ELFMENTS PRESENT .. FE COMPOSITION GENERATION DATA ... QUANTITY (LBS) 10 YR. TOTAL 16.40 DAILY RATE 0.00 UNIT WEIGHT 6.00 RECLAMATION ACTION .. REPAIR **** WASTE ITEM NO. 2 FAILED CMG GIMBAL BEARING STATE SOLID DENSITY 250.00 LBS/CU. FT. ATTRIBUTES METAL ELEMENTS PRESENT .. FE COMPOSITION GENERATION DATA ... QUANTITY (LBS) 10 YR. TOTAL 8.20 DAILY RATE 0.00 UNIT WEIGHT 6.00

S/C SUBSYSTEM NAV. GUID., STABILIZATION AND CONTROL GROUP KEY 2.1.1 ** FQUIPMENT/EXPERIMENT NO. 2 MECHANICAL SYSTEMS *** WASTE SOURCE NO. 1 CENTROL MEMENT GYROS

**** WASTE ITEM NJ. 3 FAILED CMG GIMBAL MOTOR STATE SOLID DENSITY 200.00 LBS/CU. FT. ATTRIBUTES METAL ELEMENTS PRESENT .. CU, FE COMPOSITION GENERATION DATA ... QUANTITY (LBS)

10 YR. TOTAL 93.50 DAILY RATE 0.00 UNIT WEIGHT 50.00

RECLAMATION ACTION .. REPAIR

***** WASTE ITEM NO. 4 FAILED CMG GIMBAL ANGLE PICK-OFF STATE SOLID

DENSITY 200.00 LBS/CU. FT.

ATTRIBUTES METAL ELEMENTS PRESENT .. CU, FE

COMPOSITION

GENERATION DATA ... -- QUANTITY (LBS)

> 10 YR. TOTAL 1.80 DAILY RATE 0.00 UNIT WEIGHT 1.00

RECLAMATION ACTION .. REPAIR

***** WASTE ITEM NO. 5 FAILED CMG SERVO ELECTRONICS

STATE SOLID

DENSITY 52.00 LBS/CU. FT. ATTRIBUTES METAL

ELEMENTS PRESENT .. AL. CU. FE, SI

COMPOSITION

GENERATION DATA ... QUANTITY (LBS) 10 YR. TOTAL 43.40 DAILY RATE 0.00 UNIT WEIGHT 15.00

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S/C SUBSYSTEM .... NAV. GUID., STABILIZATION AND CONTROL
   GROUP KEY .... 2.1.1
** EQUIPMENT/EXPERIMENT NO. 2 .....MECHANICAL SYSTEMS
**** WASTE SOURCE NO. 1 .... CONTROL MCMENT GYROS
**** WASTE ITEM NO. 6 ... FAILED CMG GIMBAL ANGLE SERVO MOTOR
         STATE ..... SCLID
         DENSITY ..... 200.00 LBS/CU. FT.
         ATTRIBUTES ..... METAL
         ELEMENTS PRESENT .. CU, FE
        COMPOSITION .....
                                        QUANTITY (LBS)
         GENERATION DATA ...
                  10 YR. TOTAL
                                          46.80
                  DAILY RATE
                                           0.00
                  UNIT WEIGHT
                                          25.00
        RECLAMATION ACTION .. REPAIR
**** WASTE ITEM NO. 7 .... FAILED CMG POWER SUPPLY
         STATE ..... SCLID
         DENSITY ..... 77.00 LBS/CU. FT.
         ATTRIBUTES ..... METAL
         FLEMENTS PRESENT .. AL, CU, FE, SI
         COMPOSITION .....
         GENERATION DATA ...
                                        QUANTITY (LBS)
                  10 YR. TOTAL
                                          18.50
                  DAILY RATE
                                          0.00
                  UNIT WEIGHT
                                          15.00
         RECLAMATION ACTION .. REPAIR
***** WASTE ITEM NO. 8 .... PACKAGING FOR REPLACEMENT PARTS
         STATE ..... SOLID
         DENSITY ..... 5.00 LBS/CU. FT.
         ATTRIBUTES ..... PLASTIC
         ELEMENTS PRESENT ...
         COMPOSITION ...... PLASTIC SPONGE, SHEETING
         GENERATION DATA ...
                                        QUANTITY (LBS)
                  10 YR. TOTAL
                                           0.00
                  DAILY RATE
                                           0.00
                  UNIT WEIGHT
                                           0.00
         RECLAMATION ACTION .. REUSE AS IS
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S/C SUBSYSTEM .... NAV. GUID., STABILIZATION AND CONTROL GROUP KEY .... 2.1.1
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*** WASTE SOURCE NO. 2 REACTION JET CONTROL, MONO-PROPELLANT

DOCUMENT NO. 2.1.1.2.2

REFERENCE ND. 1 .. AUXILIARY PROPULSION SURVEY, AFSC-USAF, AF APL-TR-68-67 3 PARTS.

REFERENCE ND. 2 .. FAILURE RATE DATA HANDBOOK, TRI-SERVICE AND NASA-SP63-470.

REFERENCE NO. 3 .. STUDY OF SPACE STATION PROPULSION SYSTEM
RESUPPLY AND REPAIR. VICTOR A. DESCAMP
- MARTIN MARIETTA CORPORATION, DENVER, C
OLORADO. JAN. 1970. N70-22830, NASA CRIO

***** WASTE ITEM NO. 1 FAILED PRESSURANT TANK

STATE SOLID

DENSITY 10.00 LBS/CU. FT.

ATTRIBUTES METAL

ELEMENTS PRESENT .. TITANIUM

COMPOSITION

GENERATION DATA ... QUANTITY (LBS)

10 YR. TOTAL 505.00 DAILY RATE 0.00 UNIT WEIGHT 250.00

RECLAMATION ACTION .. REPAIR

****** WASTE ITEM NO. 2 FAILED FILL VALVE & PRESSURE RELIEF

STATE SOLID

DENSITY 260.00 LBS/CU. FT.

ATTRIBUTES METAL ELEMENTS PRESENT .. FE, CU

COMPOSITION

GENERATION DATA ... QUANTITY (LBS)

10 YR. TOTAL 7.90 DAILY RATE 0.00 UNIT WEIGHT 3.00

S/C SUBSYSTEM NAV. GUID., STABILIZATION AND CONTROL 3ROUP KEY 2.1.1 ** EQUIPMENT/EXPERIMENT NO. 2 MECHANICAL SYSTEMS
**** WASTE SOURCE NO. 2 REACTION JET CONTROL, MCNO-PROPELLANT ****** WASTE ITEM NO. 3 ... FAILED N2 START VALVE STATE SOLID DENSITY 26C.00 LBS/CU. FT. ATTRIBUTES METAL ELEMENTS PRESENT .. FE, CU COMPOSITION GENERATIEN DATA ... QUANTITY (LBS) 10 YR. TOTAL 7.00 DAILY RATE 0.00 UNIT WEIGHT 2.00 RECLAMATION ACTION .. REPAIR **** WASTE ITEM NO. 4 ... FAILED FILTER STATE SOLID DENSITY 170.00 LBS/CU. FT. ATTRIBUTES METAL ELEMENTS PRESENT .. COMPOSITION STAINLESS STEEL GENERATION DATA ... QUANTITY (LBS) 10 YR. TOTAL 8.76 DAILY RATE 0.00 UNIT WEIGHT 1.00

***** WASTE ITEM NO. 5 FAILED PRESSURE REGULATOR

STATE SCLID

DENSITY 260.00 LBS/CU. FT.

RECLAMATION ACTION .. CLEAN OR REPLACE

ATTRIBUTES METAL ELEMENTS PRESENT .. FE, CU COMPOSITION

GENERATION DATA ...
10 YR. TOTAL

DAILY RATE 0.00 UNIT WEIGHT 5.00

QUANTITY (LBS)

26.30

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S/C SUBSYSTEM .... NAV. GUID., STABILIZATION AND CONTROL
    3ROUP KEY .... 2.1.1
** EQUIPMENT/FXPERIMENT NO. 2 .... MECHANICAL SYSTEMS
**** WASTE SOURCE NO. 2 .... REACTION JET CONTROL, MGNO-PROPELLANT
**** WASTE ITEM NO. 6 ... FAILED CHECK VALVE
         STATE ..... SOLID
         DENSITY ..... 260.00 LBS/CU. FT.
         ATTRIBUTES .... METAL
         ELEMENTS PRESFNT .. FE, CU
         COMPOSITION .....
         GENERATION DATA ...
                                         QUANTITY (LBS)
                   10 YR. TOTAL
                                             0.26
                   DAILY RATE
                                             0.00
                   UNIT WEIGHT
                                             1.00
         RECLAMATION ACTION .. REPAIR
**** WASTE ITEM NO. 7 .... FAILED BLADDER
         STATE ..... SDLID
         DENSITY ..... 50.00 LBS/CU. FT.
         ATTRIBUTES .... PLASTIC
         ELEMENTS PRESENT ..
         COMPOSITION ..... PLASTIC
         GENERATION DATA ...
                                          QUANTITY (LBS)
                   10 YR. TOTAL
                                            35.00
                   DAILY RATE
                                             0.00
                   UNIT WEIGHT
                                            50.00
         REGLAMATION ACTION .. REPAIR OR REPLACE
***** WASTE ITEM NO. 8 .... FAILED PROPELLANT STORAGE TANK
         STATE ..... SOLID
         DENSITY ..... 10.00 LBS/CU. FT.
         ATTRIBUTES .... METAL
         ELEMENTS PRESENT .. TITANIUM
         COMPOSITION .....
         GENERATION DATA ...
                                          QUANTITY (LBS)
                   10 YR. TOTAL
                                          2020.00
                   DAILY RATE
                                             0.00
                   UNIT WEIGHT
                                         1000.00
         RECLAMATION ACTION .. REPAIR
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S/C SUBSYSTEM .... NAV. GUID., STABILIZATION AND CONTROL
   GROUP KEY .... 2.1.1
** EQUIPMENT/EXPERIMENT NO. 2 .....MECHANICAL SYSTEMS
**** WASTE SOURCE NO. 2 .... REACTION JET CONTROL, MCNO-PROPELLANT
***** WASTE ITEM NO. 9 .... FAILED PROPELLANT FILLED VALVE
         STATE ..... SOLID
         DENSITY ..... 260.00 LBS/CU. FT.
         ATTRIBUTES ..... METAL
         ELEMENTS PRESENT .. FE, CU
         CCMPOSITION .....
         GENERATION DATA ...
                                        QUANTITY (L8S)
                  10 YR. TOTAL
                                           0.52
                  DAILY RATE
                                           0.00
                  UNIT WEIGHT
                                           2.00
         RECLAMATION ACTION .. REPAIR
***** WASTE ITEM NO. 10 .... FAILED FUEL START VALVE
         STATE ..... SOLID
         DENSITY ..... 260.00 LBS/CU. FT.
         ATTRIBUTES ..... METAL
         ELFMENTS PRESENT .. FE, CU
         COMPOSITION .....
         GENERATION DATA ...
                                        QUANTITY (LBS)
                  10 YR. TOTAL
                                           7.00
                  DAILY RATE
                                           0.00
                  UNIT WEIGHT
                                           2.00
         RECLAMATION ACTION .. REPAIR
***** WASTE ITEM NO. 11 .... FAILED FLOW CONTROL VALVE
         STATE ...... SOLID
         DENSITY ..... 260.00 LBS/CU. FT.
         ATTRIBUTES ..... METAL
         ELEMENTS PRESENT .. FE, CU
         COMPOSITION .....
         GENERATION DATA ...
                                        QUANTITY (LBS)
                  10 YR. TOTAL
                                         378.00
                  DATLY RATE
                                          0.00
                  UNIT WEIGHT
                                           3.00
         RECLAMATION ACTION .. REPAIR
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S/C SUBSYSTEM .... NAV. GUID., STABILIZATION AND CENTROL
    GROUP KEY .... 2.1.1
** E JUIPMENT/EXPERIMENT ND. 2 .... MECHANICAL SYSTEMS
**** WASTE SOURCE NO. 2 .... REACTION JET CONTROL, MCNO-PROPELLANT
**** WASTE ITEM NO. 12 .... FAILED CATALYST BED
         STATE ..... SOLID
         DENSITY ..... 35C.00 LBS/CU. FT.
         ATTRIBUTES ..... METAL
         FLEMENTS PRESENT .. IRIDIUM
         COMPOSITION .....
         GENERATION DATA ...
                                        QUANTITY (LBS)
                  10 YR. TOTAL
                                        1840.00
                  DAILY RATE
                                          0.00
                  UNIT WEIGHT
                                          35.00
         RECLAMATION ACTION .. CHEMICALLY TREAT

√*****
WASTE ITEM NO. 13 .... FAILED NOZZLES

         STATE ..... SOLID
         DENSITY ..... 94.00 LBS/CU. FT.
         ATTRIBUTES .... METAL
         ELEMENTS PRESENT .. FE, TITANIUM
         COMPOSITION .....
         GENERATION DATA ...
                                       QUANTITY (LBS)
                  10 YR. TOTAL
                                         200.00
                  DAILY RATE
                                           0.00
                  UNIT WEIGHT
                                           5.00
         RECLAMATION ACTION .. REPAIR
***** WASTE ITEM NO. 14 .... PACKAGING FOR REPLACEMENT PARTS
         STATE ..... SOLID
         DENSITY ..... 5.00 LBS/CU. FT.
         ATTRIBUTES .... PLASTIC
         ELEMENTS PRESENT ..
         COMPOSITION ..... PLASTIC SPONGE SHEETING
         GENERATION DATA ...
                                         QUANTITY (LBS)
                  10 YR. TOTAL
                                           0.00
                  DAILY RATE
                                           0.00
                  UNIT WEIGHT
                                           0.00
         RECLAMATION ACTION .. REUSE AS IS
```

S/C SUBSYSTEM NAV. GUID., STABILIZATION AND CONTROL GROUP KEY 2.1.1

** EQUIPMENT/EXPERIMENT NO. 2MECHANICAL SYSTEMS

**** WASTE SOURCE NO. 3 REACTION JET CONTROL, BI-PROPELLANT

DOCUMENT NO. 2.1.1.2.3

REFERENCE NO. 1 .. AUXILIARY PROPULSION SURVEY, ASFC-USAF, AF APL-TR-68-67 3 PARTS.

REFERENCE NO. 2 .. FAILURE RATE DATA HANDBOOK TRI-SERVICE A
NO NASA SP 63-470.

REFERENCE NO. 3 .. STUDY OF SPACE STATION PROPULSION SYSTEM
RESUPPLY AND REPAIR. VICTOR A. DESCAMP
- MARTIN MARIETTA CORPORATION, DENVER, C
OLORADO JAN. 1970. N70-2283, NASA CP1025

***** WASTE ITEM NO. 1 FAILED PRESSURANT TANK

STATE SOLID

DENSITY 1C.00 LBS/CU. FT.

ATTRIBUTES METAL

ELEMENTS PRESENT .. TITANIUM

COMPOSITION

GENERATION DATA ... QUANTITY (LBS)

10 YR. TOTAL 507.00 DAILY RATE 0.00 UNIT WEIGHT 250.00

RECLAMATION ACTION .. REPAIR

***** WASTE ITEM NO. 2 FAILED FILL VALVE

STATE SOLID

DENSITY 260.00 LBS/CU. FT.

ATTRIBUTES METAL ELEMENTS PRESENT .. FE, CU

COMPOSITION

GENERATION DATA ... - QUANTITY (LBS)

10 YR. TOTAL 7.90 DAILY RATE 0.00 UNIT WEIGHT 3.00

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S/C SUBSYSTEM .... NAV. GUID., STABILIZATION AND CONTROL
      ROUP KEY .... 2.1.1
  ** E )ÛIPMENT/EXPERIMENT NO. 2 .....MECHANICAL SYSTEMS
**** WASTE SOURCE NO. 3 .... RFACTION JET CONTROL, BI-PROPELLANT
  **** WASTE ITEM NO. 3 ... VALVE, PRESSURANT START
           STATE ..... SOLID
           DENSITY ..... 260.00 LBS/CU. FT.
           ATTRIBUTES .... METAL
           ELEMENTS PRESENT .. FE, CU
           COMPOSITION .....
           GENERATION DATA ...
                                            QUANTITY (LBS)
                     10 YR. TOTAL
                                               7.00
                     DAILY RATE
                                               0.00
                     UNIT WEIGHT
                                               2.00
           RECLAMATION ACTION ...
✓ ***** WASTE ITEM NO. 4 .... FAILED PRESSURE REGULATOR
           STATE ..... SOLID
           DENSITY ..... 26C.00 LBS/CU. FT.
           ATTPIBUTES ..... METAL
           ELFMENTS PRESENT .. FE, CU
           COMPOSITION .....
           GENERATION DATA ...
                                            QUANTITY (LBS)
                     IO YR. TOTAL
                                              52.60
                     DAILY RATE
                                               0.00
                     UNIT WEIGHT
                                               5.00
           RECLAMATION ACTION .. REPAIR
  **** WASTE ITEM NO. 5 .... FAILED RELIEF VALVE
           STATE ..... SOLID
           DENSITY ..... 260.00 LBS/CU. FT.
           ATTRIBUTES .... METAL
           ELEMENTS PRESENT .. FE, CU
           COMPOSITION .....
           GENERATION DATA ...
                                            QUANTITY (LBS)
                     10 YR. TOTAL
                                              15.80
                     DAILY RATE
                                               0.00
                     UNIT WEIGHT
                                               3.00
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S/C SUBSYSTEM .... NAV. GUID., STABILIZATION AND CONTROL
   GROUP KEY .... 2.1.1
** EQUIPMENT/EXPERIMENT NO. 2 ..... MECHANICAL SYSTEMS
**** WASTE SOURCE NO. 3 .... REACTION JET CONTROL, BI-PROPELLANT
***** WASTE ITEM NO. 6 ... FAILED CHECK VALVE
         STATE ..... SOLID
         DENSITY ..... 26C.00 LBS/CU. FT.
         ATTRIBUTES .... METAL
         ELFMENTS PRESENT .. FE, CU
         COMPOSITION .....
         GENERATION DATA ...
                                        QUANTITY (LBS)
                 10 YR. TOTAL
                                           0.52
                 DAILY RATE
                                           0.00
                 UNIT WEIGHT
                                           1.00
         RECLAMATION ACTION .. REPAIR
**** WASTE ITEM NO. 7 .... FAILED OXIDIZER TANK
         STATE ..... SOLID
         DENSITY ..... 1C.00 LBS/CU. FT.
         ATTRIBUTES .... METAL
         ELEMENTS PRESENT .. TITANIUM
         COMPOSITION .....
                                        QUANTITY (LBS)
         GENERATION DATA ...
                 10 YR. TOTAL
                                        1010.00
                  DAILY RATE
                                           0.00
                  UNIT WEIGHT
                                         500.00
         RECLAMATION ACTION .. REPAIR
**** WASTE ITEM NO. 8 .... FAILED CXIDIZER TANK BLADDER
         STATE ..... SOLID
         DENSITY ..... 5C.00 LBS/CU. FT.
        ATTRIBUTES ..... PLASTIC
         ELEMENTS PRESENT ..
         COMPOSITION ..... PLASTIC
         GENERATION DATA ...
                                        QUANTITY (LBS)
                 10 YR. TOTAL
                                          17.50
                  DAILY RATE
                                          0.00
                                          25.00
                  UNIT WEIGHT
         RECLAMATION ACTION .. REPAIR OR REPLACE
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S/C SUBSYSTEM .... NAV. GUID., STABILIZATION AND CONTPOL
    3ROUP KEY .... 2.1.1
** EQUIPMENT/EXPERIMENT NO. 2 .....MECHANICAL SYSTEMS
**** WASTE SOURCE NO. 3 .... REACTION JET CONTROL, BI-PROPELLANT
**** WASTE ITEN NO. 9 .... FAILED FUEL TANK
         STATE ..... SOLID
         DENSITY ..... 1C.00 LBS/CU. FT.
         ATTRIBUTES .... VETAL
         ELEMENTS PRESENT .. TITANIUM
         CGMPOSITION .....
                                       QUANTITY (LBS)
         GENERATION DATA ...
                                       1010.00
                  10 YR. TOTAL
                  DAILY RATE
                                          0.00
                                        500.00
                  UNIT WEIGHT
         RECLAMATION ACTION .. REPAIR
**** WASTE ITEM NO. 10 ... FAILED FUEL TANK BLADDER
         STATE ..... SOLID
         DENSITY ..... 50.00 LBS/CU. FT.
         ATTRIBUTES ..... PLASTIC
         ELEMENTS PRESENT ..
         COMPOSITION ..... PLASTIC
         GENERATION DATA ...
                                        QUANTITY (LBS)
                  10 YR. TOTAL
                                          17.50
                                           0.00
                  DAILY RATE
                  UNIT WEIGHT
                                          25.00
         RECLAMATION ACTION .. REPAIR OR REPLACE
****** WASTE ITEM NJ. 11 .... FAILED PURGE AND FILL VALVE
       _ STATE ..... SOLID
         DENSITY ..... 260.00 LBS/CU. FT.
         ATTRIBUTES ..... METAL
         ELEMENTS PRESENT .. FE, CU
         COMPOSITION .....
         GENERATION DATA ...
                                        QUANTITY (LBS)
                  10 YR. TOTAL
                                           1.04
                  DATLY RATE
                                           0.00
                  UNIT WEIGHT
                                           2.00
         RECLAMATION ACTION .. REPAIR
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S/C SUBSYSTEM NAV. GUID., STABILIZATION AND CONTROL 3ROUP KEY 2.1.1 ** EQUIPMENT/EXPERIMENT NO. 2MECHANICAL SYSTEMS **** WASTE SOURCE NO. 3 REACTION JET CONTROL, BI-PROPELLANT ***** WASTE ITEM NO. 12 FAILFD ISOLATION VALVE STATE SOLID DENSITY 26G.00 LBS/CU. FT. ATTRIBUTES METAL FLEMENTS PRESENT .. FE, CU COMPOSITION QUANTITY (LBS) GENERATION DATA ... 10 YR. TOTAL 12.48 DAILY RATE 0.00 UNIT WEIGHT 2.00 RECLAMATION ACTION .. REPAIR **** WASTE ITEM NJ. 13 FAILED BIPROPELLANT VALVE STATE SCLID DENSITY 260.00 LBS/CU. FT. ATTRIBUTES METAL ELEMENTS PRESENT .. FE, CU COMPOSITION GENERATION DATA ... QUANTITY (LBS) 10 YR. TOTAL 504.00 DAILY RATE 0.00 UNIT WEIGHT 4.00 RECLAMATION ACTION .. REPAIR ****** WASTE ITEM NO. 14 FAILED THRUSTER NDZZLES STATE SCLID DENSITY 94.00 LBS/CU. FT. ATTRIBUTES METAL ELFMENTS PRESENT .. FE, TITANIUM CCMPOSITION GENERATION DATA ... QUANTITY (LBS) 10 YR. TOTAL 279.70 DAILY RATE 0.00

UNIT WEIGHT

RECLAMATION ACTION ..

7.00

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S/C SUBSYSTEM .... NAV. GUID., STABILIZATION AND CONTROL SROUP KEY .... 2.1.1
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**** ** WASTE ITEM NJ. 15 PACKAGING OF REPLACEMENT PAPTS STATE SCLID

DENSITY 5.00 LBS/CU. FT.

ATTRIBUTES PLASTIC

ELEMENTS PRESENT ..

COMPOSITION PLASTIC SPONGE, SHEETING

GENERATION DATA ... QUANTITY (LBS)

10 YR. TOTAL 0.00 DAILY RATE 0.00 UNIT WEIGHT 0.00

RECLAMATION ACTION .. REUSE AS IS

PROVIDE FOR ELECTRIC AND THERMAL POWER

S/C SUBSYSTEM ELECTRIC POWER GROUP KEY 2.2.1

BASIC FUNCTION MAINTAIN S/C FUNCTION FUNCTIONAL REQUIREMENT PROVIDE ELECTRICAL AND THERMAL POWER

** EQUIPMENT/EXPERIMENT NO. 1 SOLAR ARRAYS

S/C AREAS EXTRA VEHICULAR

**** WASTE SOURCE NO. 1 SOLAR ARRAYS

DOCUMENT NO. 2.2.1.1.1*

REFERENCE NO. 1 .. NASA REQUEST FCR PROPOSAL FOR PHASE B DE FINITION OF A SPACE STATION PROGRAM.

REFFRENCE NO. 2 .. NORTH AMERICAN ROCKWELL SPACE STATION PR OGRAM PHASE B DEFINITION, TECHNOLOGY REQU IREMENTS REVIEW, PDS70-217, 25 MARCH 1970.

***** WASTE ITEM NO. 1 FAILED SOLAR ARRAYS

STATE SOLID

DENSITY 0.12 LBS/CU. FT.

ATTRIBUTES METAL ELEMENTS PRESENT .. AL, CU, FE

COMPOSITION PLASTICS, SI-SEMICONDUCTOR

GENERATION DATA ... QUANTITY (L8S)
10 YR. TOTAL 24587.00

10 YR. TOTAL 24587.00 DAILY RATE 0.00 UNIT WEIGHT 0.12

RECLAMATION ACTION .. REPLACE

**** WASTE ITEM NO. 2 FAILED REGULATOR

STATE SOLID

DENSITY 77.00 LBS/CU. FT.

ATTRIBUTES METAL ELEMENTS PRESENT .. AL, CU, FE

COMPOSITION PLASTICS, SI-SEMICONDUCTOR

GENERATION DATA ... QUANTITY (LBS)

10 YR. TOTAL 55.00
DAILY RATE 0.00
UNIT WEIGHT 15.00

```
S/C SUBSYSTEM .... ELECTRIC POWER
   JROUP KEY .... 2.2.1
    . . .
** EQUIPMENT/EXPERIMENT NO. 1 ......SOLAR ARRAYS
**** WASTE SOURCE NO. I ... SCLAR ARRAYS
****** WASTE ITEM NO. 3 ... FAILED INVERTER
         STATE ..... SCLID
        DENSITY ..... 77.00 LBS/CU. FT.
         ATTRIBUTES ..... METAL
        ELEMENTS PRESENT .. AL, CU, FE
        COMPOSITION ..... PLASTICS, SI-SEMICONDUCTOR
         GENERATION DATA ...
                                        QUANTITY (LBS)
                 10 YR. TOTAL
                                        131.00
                  DAILY RATE
                                           0.00
                 UNIT WEIGHT
                                          25.00
        RECLAMATION ACTION .. REPAIR
***** WASTE ITEM NO. 4 ... FAILED VOLTAGE REFERENCE
         STATE ..... SOLID
         DENSITY ..... 52.00 LBS/CU. FT.
         ATTRIBUTES .... METAL
         ELEMENTS PRESENT .. AL, CU, FE
         COMPOSITION ..... PLASTICS, SI-SEMICONDUCTOR
         GENERATION DATA ...
                                        QUANTITY (LBS)
                  10 YR. TOTAL
                                           0.90
                  DAILY RATE
                                           0.00
                  UNIT WEIGHT
                                           2.50
        RECLAMATION ACTION .. REPAIR
****** WASTE ITEM NO. 5 ... FAILED SYNCHRONIZER CLOCK
         STATE ..... SOLID
         DENSITY ..... 52.00 LBS/CU. FT.
         ATTRIBUTES .... METAL
         ELEMENTS PRESENT .. AL CUSFE
         COMPOSITION ..... PLASTICS, SI-SEMICONDUCTOR
         GENERATION DATA ...
                                       QUANTITY (LBS)
                  10 YR. TOTAL"
                                          0.90
                  DAILY RATE
                                          0.00
                  UNIT WEIGHT
                                          2.50
         RECLAMATION ACTION .. REPAIR
```

S/C SUBSYSTEM ELECTRIC PCWER SROUP KEY 2.2.1

** EQUIPMENT/EXPERIMENT NO. 1SOLAR ARRAYS

**** WASTE SOURCE NO. 1 SCLAR ARRAYS

***** WASTE ITEM NO. 6 FAILED CIRCUIT BREAKER STATE SGLID

DENSITY 77.00 LBS/CU. FT. ATTRIBUTES METAL

ATTRIBUTES METAL ELEMENTS PRESENT .. CU, FE, AL COMPOSITION PLASTIC

GENERATION DATA ... QUANTITY (LBS)

10 YR. TOTAL 0.60
DAILY RATE 0.00
UNIT WEIGHT 1.00

RECLAMATION ACTION .. REPLACE

**** WASTE ITEM NO. 7 FAILED POWER CONTACTOR

STATE SCLID

DENSITY 77.00 LBS/CU. FT.

ATTRIBUTES METAL ELEMENTS PRESENT .. CU.FE, AL COMPOSITION PLASTIC

GENERATION DATA ... QUANTITY (LBS)

10 YR. TOTAL 0.70

DAILY RATE 0.00

UNIT WEIGHT 1.00

RECLAMATION ACTION .. REPLACE

***** WASTE ITEM NJ. 8 ... FAILED MONITOR METER(DC)

STATE SCLID

DENSITY 77.00 LBS/CU. FT.

ATTRIBUTES PETAL

ELEMENTS PRESENT .. CU, FE, AL, SIO2

CCMPOSITION PLASTIC

GENERATION DATA ... QUANTITY (LBS)
10 YR. TOTAL 0.09
DAILY RATE 0.00
UNIT WEIGHT 0.50

```
S/C SUBSYSTEM .... ELECTRIC PCKER
   GROUP KEY ..... 2.2.1
** EQUIPMENT/EXPERIMENT NO. 1 .....SOLAR ARRAYS
**** WASTE SCURCE NO. 1 .... SOLAR ARRAYS
**** WASTE ITE 1 NO. 9 .... FAILED MONITOR METER(AC)
        STATE ..... SOLID
        DENSITY ..... 77.00 LBS/CU. FT.
        ATTRIBUTES .... METAL
        ELEMENTS PRESENT .. CU, FE, AL, SIO2
        COMPOSITION ..... PLASTIC
        GENERATION DATA ...
                                      QUANTITY (LBS)
                 10 YR. TOTAL
                                     0.09
                 DAILY RATE
                                         0.00
                 UNIT WEIGHT
                                         0.50
        RECLAMATION ACTION .. REPAIR
***** WASTE ITEM NO. 10 .... FAILED MONITOR METER SWITCHES
        STATE ..... SOLID
        DENSITY ..... 77.00 LBS/CU. FT.
        ATTRIBUTES ..... METAL
        ELEMENTS PRESENT .. CU, FE, AL
        COMPOSITION ..... PLASTICS
        GENERATION DATA ...
                                       QUANTITY (LBS)
                 10 YR. TOTAL
                                       0.18
                 DAILY RATE
                                        -0.00
                 UNIT WEIGHT
                                        CO-25
        RECLAMATION ACTION .. REPAIR
***** WASTE ITEM NO. 11 .... FAILED REMOTE CONTROL SWITCHES
       STATE ..... SOLID
        DENSITY ...... 77.00 LBS/CU. FT.
        ATTRIBUTES ..... METAL
        ELEMENTS PRESENT .. CUPFE
        COMPOSITION ..... PLASTICS --
        GENERATION DATA ...
                                      QUANTITY (LBS)
                 10 YR. TOTAL
                                      ີພູ 0.35 _ .
                 DAILY RATE
                                      ÇQ €00
                 UNIT WEIGHT
                                        ૨0,∢25
```

0.50

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S/C SUBSYSTEM .... ELECTRIC POWER GROUP KEY .... 2.2.1
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***** WASTE ITEM NO. 12 FAILED PRIMARY SYSTEM WIRING STATE SCLID DENSITY 14.00 LBS/CU. FT. ATTRIBUTES METAL ELEMENTS PRESENT .. AL COMPOSITION QUANTITY (LBS)

10 YR. TOTAL 0.00 DAILY RATE 0.00 UNIT WEIGHT 0.00

RECLAMATION ACTION .. REPLACE

/ ***** WASTE-ITEM NO. 13 PACKAGING FOR REPLACEMENT PARTS

STATE SOLID

DENSITY 5.00 LBS/CU. FT.

ATTRIBUTES METAL

ELEMENTS PRESENT ..

COMPOSITION PLASTIC SPONGE AND SHEETING GENERATION DATA ... QUANTITY (LBS)

10 YR. TOTAL 0.00
DAILY RATE 0.00
UNIT WEIGHT 0.00

RECLAMATION ACTION .. REUSE AS IS

S/C SUBSYSTEM ELECTRIC POWER

GROUP KEY 2.2.1

*** ***

** FOUIPMENT/EXPERIMENT NO. 2 RADIOISOTOPE BRAYTON CYCLE

S/C AREAS EXTRA VEHICULAR

**** WASTE SOURCE NO. 1 RADIOISOTOPE BRAYTON CYCLE

COCUMENT NO. 2.2.1.2.1*

REFERENCE NO. 1 .. NASA REQUEST FOR PROPOSAL FOR PHASE B DE FINITION OF A SPACE STATION PROGRAM.

REFERENCE NO. 2 .. NORTH AMERICAN ROCKWELL SPACE STATION PR CGRAM PHASE B DEFINITION TECHNOLOGY REQU IREMENTS REVIEW.PDS70-217,25 MARCH 1970.

REFERENCE NO. 3 .. INTEGRATED MANNED INTERPLANETARY SPACECR AFT CONCEPT DEFINITION FINAL REPORT SYST EM DEFINITION D2-113544-4, PREPARED FOR N ASA LANGLEY BY BOEING AEROSPACE CROUP. JA

REFFRENCE NO. 4 .. SUMMARY OF ELECTRICAL COMPONENT DEVELOPM ENT FOR A 400 HERTZ BRAYTON ENERCY CONVERSION SYSTEM CORCORAN & YEAGER, LEWIS RESIDENCE OF CENTER, NASA TECHNICAL NOTE NASA TY

REFERENCE NO. 5 .. SPACE STATION SUPPOPTING RESEARCH AND TE CHNOLOGY INITIAL BRIEFING, MCDONNEL DOUGL AS ASTRONAUTICS COMPANY, 24 MARCH 1970

***** WASTE ITEM NO. 1 FAILED FUEL BLOCK

STATE SOLID

DENSITY 224.00 LBS/CU. FT.

ATTRIBUTES METAL

ELEMENTS PRESENT ...

COMPOSITION PU-238

GENERATION DATA ...

10 YR. TOTAL

DAILY RATE

UNIT WEIGHT

QUANTITY (LBS)

0.00

0.00

2500.00

RECLAMATION ACTION .. NONE

S/C SUBSYSTEM ELECTRIC POWER GROUP KEY 2.2.1

** FQUIPMENT/EXPERIMENT NO. 2RADIOISOTOPE BRAYTON CYCLE **** WASTE SOURCE NO. 1 RADIOISOTOPE BRAYTON CYCLE

***** WASTE ITEM NO. 2 FAILED SHIELDING

STATE SOLID

DENSITY 51.20 LBS/CU. FT.

ATTRIBUTES METAL

ELEMENTS PRESENT .. URANIUM, LITHIUM HYDRIDE

COMPOSITION

GENERATION DATA ... QUANTITY (LBS)

 10 YR. TOTAL
 2500.00

 DAILY RATE
 0.00

 UNIT WEIGHT
 2500.00

RECLAMATION ACTION .. REPAIR

***** WASTE ITEM NO. 3 FAILED PCS

STATE SOLID

DENSITY 16.10 LBS/CU. FT.

ATTRIBUTES METAL ELEMENTS PRESENT .. FE CU

COMPOSITION AL INSULATION

GENERATION DATA ... QUANTITY (LBS)

10 YR. TOTAL 24360.00 DAILY RATE 0.00 UNIT WEIGHT 4200.00

RECLAMATION ACTION .. REPAIR

***** WASTE ITEM NJ. 4 FAILED RADIATOR

-STATE SOLID

DENSITY 11.00 LBS/CU. FT.

ATTRIBUTES METAL ELEMENTS PRESENT .. AL

COMPOSITION SIC2 INSULATION

GENERATION DATA ... QUANTITY (LBS)

10 YR. TOTAL 207.00
DAILY RATE 0.00
- UNIT WEIGHT 2300.00

```
S/C SUBSYSTEM .... ELECTRIC PCWER
     GROUP KEY .... 2.2.1
 ** EQUIPMENT/EXPERIMENT NO. 2 .....RADIOISOTOPE BRAYTON CYCLE
 **** WASTE SOURCE NO. 1 .... RADIOISOTOPE BRAYTON CYCLE
 ****** WASTE ITEM NO. 5 .... FAILED PUMP/MOTOR
           STATE ..... SOLID
           DENSITY ..... 200.00 LBS/CU. FT.
           ATTRIBUTES ..... METAL
           ELEMENTS PRESENT .. FE, CU
           COMPOSITION ..... AL INSULATION
           GENERATION DATA ...
                                           QUANTITY (LBS)
                    10 YR. TOTAL
                                            75.00
                    DAILY RATE
                                             0.00
                    UNIT WEIGHT
                                            25.00
           RECLAMATION ACTION .. REPAIR
✓ ****** WASTETITEM NO. 6 .... PACKAGING FOR REPLACEMENT PARTS
           STATE ..... SOLID
           DENSITY ..... - 5.00 LBS/CU. FT.
           ATTRIBUTES ..... PLASTIC
           FLEMENTS PRESENT ..
           COMPOSITION ..... PLASTIC SPONGE AND SHEETING
           GENERATION DATA ...
                                           QUANTITY (LBS)
                    10 YR. TOTAL
                                             0.00
                    DAILY RATE
                                             0.00
                    UNIT WEIGHT
                                             0.00
           RECLAMATION ACTION .. REUSE AS IS
  ****** WASTE ITEM NO. 7 ... FAILED FREQUENCY DISCRIMINATOR
           STATE ..... SOLID
           DENSITY ..... 52.00 LBS/CU. FT.
           ATTRIBUTES ..... METAL
           ELEMENTS PRESENT .. AL, CU, FE, NI
           COMPOSITION ..... SI-SEMI COND. PLASTICS
           GENERATION DATA ...
                                           QUANTITY (LBS)
                    10 YR. TOTAL
                                            18.90
                    DAILY RATE
                                             0.00
                    UNIT WEIGHT
                                             2.00
           RECLAMATION ACTION .. REPAIR
```

S/C SUBSYSTEM ELECTRIC POWER GROUP KEY 2.2.1

****** WASTE ITEM NO. 8 FAILED MAGNETIC PREAMPLIFIER STATE SOLID

DENSITY 8C.OO LBS/CU. FT.

ATTRIBUTES METAL

ELEMENTS PRESENT .. AL, CU, FE, NI

COMPOSITION SI-SEMI COND.PLASTICS

GENERATION DATA ... QUANTITY (LBS)
10 YR. TOTAL 0.37

DAILY RATE 0.00 UNIT WEIGHT 2.00

RECLAMATION ACTION .. REPAIR

**** WASTE ITEM NO. 9 FAILED MAGNETIC AMPLIFIER

STATE SOLID

DENSITY 80.00 LBS/CU. FT.

ATTRIBUTES METAL

ELEMENTS PRESENT .. AL, CU, FE, NI

COMPOSITION SI-SEMI COND.PLASTICS

GENERATION DATA ... QUANTITY (LBS)

10 YR. TOTAL 2.80
DAILY RATE 0.00
UNIT WEIGHT 3.00

RECLAMATION ACTION .. REPAIR

***** WASTE ITEM NO. 10 FAILED SILICON CONTROLLED RECTIFIERS

STATE SOLID

DENSITY 77.00 LBS/CU. FT.

ATTRIBUTES METAL ELEMENTS PRESENT .. AL, CU.

COMPOSITION SI-SEMI COND.

GENERATION DATA ... QUANTITY (LBS)

10 YR. TOTAL 1.18
DAILY RATE 0.00
UNIT WEIGHT 0.25

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S/C SUBSYSIFM .... ELECTRIC PLACE
    ROUP KEY .... 2.2.1
** E JUIPMENT/EXPERIVENT NO. 2 ......RADIDISOTOPE BRAYTON CYCLE
**** NASTE STURCE NO. 1 .... RADIFISCTIPE BRAYTON CYCLE
**** ** WASTE ITEM N). II .... FAILED PARASITIC LCAD BANK
         SIMIE ..... SCIID
         DENSITY ..... 77.00 LES/CU. FT.
         ATTPIBUTES ..... PETAL
         FLEMENTS PRESENT .. FE, CU
         COMPOSITION ..... NICHRONE CEPAMIC
         CENERATIEN DATA ...
                                         QUANTITY (LRS)
                  IN YR. T(TAL
                                           1.58
                  STAF YAIR
                                           0.00
                  UNIT WEIGHT
                                           60.00
         PECLAMATION ACTION .. PEPAIP
**** "YASTE ITEM N. 12 .... FAILED VILTAGE SENSING CIRCUIT
         STATE ..... SCLIT
         DEASITY ..... 52. VO LIS/CU. FT.
         ATTRIBUTES .... "FTAL
         FLEVENTS PRESENT .. AL, CU, FE
         CUMPOSITION ...... SI-SENI CONO.PLASTICS
         CENERATION DATA ...
                                         QUANTITY (LFS)
                  10 YR. FCTAL
                                            1.50
                  PAILY RATE
                                            0.00
                  UNIT WEIGHT
                                            5.00
         PECLIAMATICA ACTION .. REPAIR
*** "* WASTE ITEM N). 13 .... FAILED VOLTAGE REFERENCE
         SIATE ..... SCLID
         DENSITY ...... 52.00 LBS/CU. FT.
         ATICIRUTES ..... YFTAL
         ELEMENTS PRESENT .. AL.CU, FE
         COMPOSITION ..... SI-SEMI COMP.PLASTICS
         CENERATION DATA ...
                                         (2HJ) YTITAAUC
                  10 YR. TOTAL
                                           1.50
                  DAILY RAFF
                                           0.00
                  UNIT SEICHT
                                           2.0)
         RECLAMATION ACTION .. REPAIR
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GENERATION DATA ...

10 YR. TOTAL

DAILY RATE

UNIT WEIGHT

RECLAMATION ACTION .. REPAIR

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RUN AC. ** 2 ** +
                                                     PACF 131
S/C SUBSYSTEM .... ELECTRIC POWER
   GROUP KEY .... 2.2.1
** EQUIPMENT/EXPERIMENT NO. 2 ....RADIOISOTOPE BRAYTON CYCLE
**** WASTE SOURCE NO. 1 .... RACIOISOTOPE BRAYTON CYCLE
***** WASTE ITEM NO. 14 .... FAILED TRANSISTER AMPLIFER
         STATE SALLED
         DENSITY ..... 52.00 LBS/CU. FT.
         ATTRIBUTES .... METAL
         ELFMENTS PRESENT .. AL, CU, FE
        COMPOSITION ..... SI-SEMI CCND.PLASTICS
         GENERATION DATA ...
                                        QUANTITY (LBS)
                 10 YR. TOTAL
                                           1.10
                  DAILY RATE
                                           0.00
                 UNIT WEIGHT
                                           1.50
        RECLAMATION ACTION .. REPAIR
**** WASTE_ITEM NO. 15 ... FAILED MAGNETIC AMPLIFIER
         STATE ..... SOLID
         DENSITY ...... 8C.00 LBS/CU. FT.
         ATTRIBUTES ..... METAL
         ELFMENTS PRESENT .. AL, CU, FE, NI
         COMPOSITION ..... SI-SEMI COND.PLASTICS
         GENERATION DATA ...
                                        QUANTITY (LBS)
                  10 YR. TOTAL
                                           1.50
                  DAILY RATE
                                           0.00
                  UNIT WEIGHT
                                           3.00
         RECLAMATION ACTION .. REPAIR
***** WASTE ITEM NO. 16 .... FAILED FEED BACK NETWORK
         STATE ..... SOLID
         DENSITY ..... 52.00 LBS/CU. FT.
         ATTRIBUTES .... METAL
         ELEMENTS PRESENT .. AL, CU
         CCMPOSITION ..... NICHROME, CERAMICS, PLASTICS
```

QUANTITY (LBS)

0.13

0.00

0.25

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S/C SUBSYSTEM .... ELECTRIC PCWER
   GROUP KEY .... 2.2.1
** EQUIPMENT/EXPERIMENT NO. 2 .....PADTOISOTOPE BRAYTON CYCLE
**** WASTE SOURCE NO. 1 .... RADICISOTOPE BRAYTON CYCLE
***~ ** WASTE ITEM NJ. 17 .... FAILED FULL WAVE RECTIFIER
         STATE ..... SOLID
         DENSITY ..... 77.00 LBS/CU. FT.
         ATTRIBUTES ..... YETAL
         ELFMENTS PRESENT .. AL, CU, FE
         COMPOSITION ..... SI-SEMI COND.CERAMICS
         GENERATION DATA ...
                                         QUANTITY (LBS)
                  10 YR. TOTAL
                                           1.60
                  DAILY RATE
                                           0.00
                  UNIT WEIGHT
                                           1.50
         PECLAMATION ACTION .. REPAIR
*** ** WASTE ITEM A). 18 .... FAILED SATURATING CURRENT POTENTIAL TRAN
         STATE ..... SOLID
         DENSITY ..... 8C.OC LBS/CU. FT.
         ATTRIBUTES ..... METAL
         ELEMENTS PRESENT .. AL, CU, FE
         CCMPOSITION ..... PLASTICS
         GENERATION DATA ...
                                         QUANTITY (LBS)
                  10 YR. TOTAL
                                           3.16
                  DAILY RATE
                                           0.00
                  UNIT WEIGHT
                                           40.00
         RECLAMATION ACTION .. REPLACE
**** WASTE ITEM NJ. 19 .... FAILED CIRCUIT BREAKERS
         STATE ..... SOLID
         DENSITY ...... 77.00 LBS/CU. FT.
         ATTRIBUTES .... METAL
         ELEMENTS PRESENT .. AL, CU, FE
         CGMPOSITION ..... PLASTICS
         GENERATION DATA ...
                                         QUANTITY (LBS)
                  10 YR. TOTAL
                                           0.35
                  DAILY RATE
                                           0.00
                  UNIT WEIGHT
                                           1.00
         RECLAMATION ACTION .. REPLACE
```

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S/C SUBSYSTEM .... ELECTRIC POWER
   GROUP KEY .... 2.2.1
** EQUIPMENT/EXPERIMENT NO. 2 ......RADIOISOTOPE BRAYTON CYCLE
**** WASTE SOURCE NO. I .... RADIOISOTOPE BRAYTON CYCLF
****** WASTE ITE' NO. 20 .... FAILED POWER CONTACTOR
         STATE ..... SOLID
         DENSITY ..... 77.00 LBS/CU. FT.
         ATTRIBUTES .... PETAL
         ELEMENTS PRESENT .. AL, CU, FE
         CCMPOSITION ..... PLASTICS
                                         QUANTITY (LBS)
         GENERATION DATA ...
                  10 YR. TOTAL
                                            0.35
                  DAILY RATE
                                            0.00
                                            1.00
                  UNIT WEIGHT
         RECLAMATION ACTION .. REPLACE
***** WASTE ITEM NO. 21 .... FAILED MCNITOR METER(DC)
         STATE ...... SOLID
         DENSITY ...... 77.00 LBS/CU. FT.
         ATTRIBUTES ..... METAL
         ELEMENTS PRESENT .. AL, CU, FE, ST 02
         COMPOSITION ..... PLASTIC
                                         QUANTITY (LBS)
         GENERATION DATA ...
                                            0.04
                  10 YR. TOTAL
                                            0.00
                  DAILY RATE
                                            0.50
                  UNIT WEIGHT
         RECLAMATION ACTION .. REPAIR
***** WASTE ITEM NO. 22 .... FAILED MCNITOR METER(AC)
         STATE ..... SOLID
         DENSITY ...... 77.00 LBS/CU. FT.
         ATTRIBUTES ..... METAL
         ELEMENTS PRESENT .. AL, CU, FE, SI 02
         COMPOSITION ..... PLASTIC
                                         QUANTITY (LBS)
         GENERATION DATA ...
                                            0.04
                  10 YR. TOTAL
                                            0.00
                  DAILY RATE
                                            0.50
                  UNIT WEIGHT
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S/C SLBSYSTEM ELECTRIC POWER SROUP KEY 2.2.1

***** WASTE ITEM NO. 23 ... FAILED REMOTE CONTROL SWITCHES

STATE SOLID

DENSITY 77.00 LBS/CU. FT. 1

ATTRIBUTES METAL

ELEMENTS PRESENT .. AL, CU, FE, SI 02

COMPOSITION PLASTIC

GENERATION DATA ... QUANTITY (LBS)

10 YR. TOTAL 0.17 DAILY RATE 0.00 UNIT WEIGHT 0.25

RECLAMATION ACTION .. REPLACE

**** WASTE ITEM NO. 24 PACKAGING FOR REPLACEMENT PARTS

STATE SOLID

DENSITY 5.00 LBS/CU. FT.

ATTRIBUTES PLASTIC

ELEMENTS PRESENT ..

CCMPOSITION PLASTIC SPONGE AND SHEETING

GENERATION DATA ... QUANTITY (LBS)
10 YR. TOTAL 0.00

DAILY RATE 0.00
UNIT WEIGHT 0.00

RECLAMATION ACTION .. REUSE AS IS

```
S/C SUBSYSTEM .... REGULATE POWER
   GROUP KEY .... 2.2.2
BASIC FUNCTION ..... MAINTAIN S/C FUNCTION
         FUNCTIONAL REQUIREMENT .... PROVIDE ELECTRICAL AND THERMAL P
                                  OWER
** EQUIPMENT/EXPERIMENT NO. 1 ..... POWER CONDITIONING SYSTEM
         S/C AREAS .... POWER
**** WASTE SOURCE NO. 1 .... PCWER CONDITIONING SYSTEM
         DOCUMENT NO. ..... 2.2.2.1.1
**** WASTE ITEM NO. 1 .... FAILED CIRCUIT BREAKER
         STATE ..... SOLID
         DENSITY ..... 77.00 LBS/CU. FT.
         ATTRIBUTES ..... METAL
         ELEMENTS PRESENT .. FE CU, AL
         COMPOSITION ..... PLASTICS
                                        QUANTITY (LBS)
         GENERATION DATA ...
                  10 YR. TOTAL
                                           2.10
                  DATLY RATE
                                           0.00
                                           1.00
                  UNIT WEIGHT
         RECLAMATION ACTION .. REPLACE
****** WASTE ITEM NO. 2 .... FAILED INVERTER REGULATOR
         STATE ..... SOLID
         DENSITY ...... 77.00 LBS/CU. FT.
         ATTRIBUTES .... METAL
         FLEMENTS PRESENT .. FE CU, AL
         COMPOSITION ..... PLASTICS SI-SEMICOND.
         GENERATION DATA ...
                                       QUANTITY (LBS)
                  10 YR. TOTAL
                                         358.00
                  DAILY RATE
                                          0.00
                  UNIT WEIGHT
                                          40.00
         RECLAMATION ACTION .. REPAIR
**** WASTE ITEM NO. 3 .... FAILED SOLAR ARRAY BATTERY CHARGER REG.
         STATE ..... SOLID
         DENSITY ..... 77.00 LBS/CU. FT.
         ATTRIBUTES .... METAL
         ELEMENTS PRESENT .. FE, CU, AL
         COMPOSITION ..... PLASTICS SI-SEMICOND.
                                        QUANTITY (LBS)
         GENERATION DATA ...
                  10 YR. TOTAL
                                      16872.00
                  DAILY RATE
                                          0.00
                                          80.00
                  UNIT WEIGHT
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S/C SUBSYSTEM .... REGULATE POWER
   GROUP KEY ..... 2.2.2
** EQUIPMENT/EXPERIMENT NO. 1 .....POWER CONDITIONING SYSTEM
**** WASTE SOURCE NO. 1 .... POWER CONDITIONING SYSTEM
***** WASTE ITEM NO. 4 .... FAILED RI/BRAYTON BATTERY CHARGER REG.
         STATE ..... SCLID
         DENSITY ..... 77.00 LBS/CU. FT.
         ATTRIBUTES ..... METAL
         ELEMENTS PRESENT .. FE, CU, AL
         COMPOSITION ..... PLASTICS SI-SEMICOND.
         GENERATION DATA ...
                                        QUANTITY (LBS)
                  10 YR. TOTAL
                                        6749.00
                  DAILY RATE
                                           0.00
                  UNIT WEIGHT
                                          80.00
         RECLAMATION ACTION .. REPAIR
***** WASTE ITEM NO. 5 .... FAILED FUEL CELL
         STATE ..... SOLID
         DENSITY ..... C.OO LBS/CU. FT.
         ATTRIBUTES .... METAL
         ELEMENTS PRESENT .. FE, CU, AL
         COMPOSITION ...... PLASTICS SI-SFMICOND.
         GENERATION DATA ...
                                        QUANTITY (LBS)
                  10 YR. TOTAL
                                           0.00
                  DAILY RATE
                                           0.00
                  UNIT WEIGHT
                                           0.00
         RECLAMATION ACTION .. REPLACE
**** WASTE ITEM NO. 6 .... FAILED RECTIFIER FILTER
         STATE ..... SOLID
         DENSITY ...... 77.00 LAS/CU. FT.
         ATTRIBUTES ..... METAL
         ELEMENTS PRESENT .. FE, CU, AL
         COMPOSITION ..... CERAMICS SI-SEMICOND.
         GENERATION DATA ...
                                        QUANTITY (LBS)
                  10 YR. TOTAL
                                          52.60
                  DAILY RATE
                                          0.00
                  UNIT WEIGHT
                                         20.00
         RECLAMATION ACTION .. REPAIR
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S/C SUBSYSTEM .... REGULATE PCKER
      GROUP KEY .... 2.2.2
  ** EJUIPMENT/EXPERIMENT NO. 1 .......POWER CONDITIONING SYSTEM
  **** WASTE SOURCE NO. 1 .... PCWER CONDITIONING SYSTEM
  ****************************
  ***** WASTE ITEM NO. 7 .... FAILED TRANSFORMER
            STATE ..... SCLID
            DENSITY ..... 8C.OO LBS/CU. FT.
            ATTRIBUTES ..... PETAL
            ELEMENTS PRESENT .. FE, CU, AL
            COMPOSITION ..... PLASTICS
                                            QUANTITY (LBS)
            GENERATION DATA ...
                     10 YR. TOTAL
                                               2.75
                                               0.00
                     DAILY RATE
                                              25.00
                     UNIT WEIGHT
           RECLAMATION ACTION .. REPLACE
/ ****** WASTE ITEM NJ. 8 .... FAILED POWER CONTACTOR
            STATE ..... SOLID
            DENSITY ......
                              77.00 LBS/CU. FT.
            ATTRIBUTES .... METAL
           ELEMENTS PRESENT .. FE, CU, AL
           COMPOSITION ..... PLASTICS
            GENERATION DATA ...
                                            QUANTITY (LBS)
                     10 YR. TOTAL
                                               2.45
                     DAILY RATE
                                               0.00
                     UNIT WEIGHT
                                               1.00
            RECLAMATION ACTION .. REPLACE
  ****** WASTE ITEM NO. 9 ... FAILED MONITOR METER DC
            STATE ..... SOLID
            DENSITY ..... 77.00 LBS/CU. FT.
            ATTRIBUTES .... METAL
            ELEMENTS PRESENT .. CU, AL, FE, SIO2
           COMPOSITION ..... PLASTICS
            GENERATION DATA ...
                                             QUANTITY (LRS)
                     10 YR. TOTAL
                                               0.04
                     DAILY RATE
                                               0.00
                     UNIT WEIGHT
                                               0.50
           RECLAMATION ACTION .. REPAIR
```

S/C SUBSYSTEM REGULATE POWER GROUP KEY 2.2.2

*** WASTE ITEM NO. 10 FAILED MONITOR METER AC

STATE SOLID

DENSITY 77.00 LBS/CU. FT.

ATTRIBUTES METAL

ELEMENTS PRESENT .. CU, AL, FE, SIO2

COMPOSITION PLASTICS

GENERATION DATA ... QUANTITY (LBS)

10 YR. TOTAL 0.04
DAILY RATE 0.00
UNIT WEIGHT 0.50

RECLAMATION ACTION .. REPAIR

**** WASTE ITEM NO. 11 FAILED MONITOR METER SWITCHES

STATE SOLID

DENSITY 77.00 LBS/CU. FT.

ATTRIBUTES METAL ELEMENTS PRESENT .. CU,FE,AL COMPOSITION PLASTICS

GENERATION DATA ... QUANTITY (LBS)

10 YR. TOTAL 0.04 DAILY RATE 0.00 UNIT WEIGHT 0.25

RECLAMATION ACTION .. REPAIR

**** WASTE ITEM NO. 12 FAILED REMOTE CONTROL SWITCHES

STATE SOLID

DENSITY 77.00 LBS/CU. FT.

ATTRIBUTES METAL ELEMENTS PRESENT .. CU-FE COMPOSITION PLASTICS

GENERATION DATA ... QUANTITY (LBS)

10 YR. TOTAL 0.11 DAILY RATE 0.00 UNIT WEIGHT 0.25

S/C SUBSYSTEM REGULATE POWER GROUP KEY 2.2.2

***** WASTE ITEM NO. 13 PACKAGING FOR REPLACEMENT PARTS

STATE SOLID

DENSITY 5.00 LBS/CU. FT.

ATTRIBUTES PLASTIC

ELEMENTS PRESENT .. SPCNGE AND SHEETING

COMPOSITION PLASTIC

GENERATION DATA ... QUANTITY (LBS)
10 YR. TOTAL 0.00

10 YR. TOTAL 0.00 DAILY RATE 0.00 UNIT WEIGHT 0.00

RECLAMATION ACTION .. REUSE AS IS

PACE 140 S/C SUBSYSTEM DISTRIBUTE POWER GROUP KEY 2.2.3 BASIC FUNCTION MAINTAIN S/C FUNCTION FUNCTIONAL REQUIREMENT PROVIDE ELECTRICAL AND THERMAL OWER ** EOUIPMENT/EXPERIMENT NO. 1 POWER DISTRÍBUTION SYSTEM S/C AREAS POWER **** WASTE SOURCE NO. 1 POWER DISTRIBUTION SYSTEM DOCUMENT NO. 2.2.3.1.1 ***** WASTE ITEM NO. 1 FAILED CCT.BKR.& GROUND LEAKAGE DETECTOR STATE SOLID DENSITY 77.00 LBS/CU. FT. ATTRIBUTES METAL FLEMENTS PRESENT .. FE, CU, AL, SI COMPOSITION SEMICOND. PLASTICS GENERATION DATA ... QUANTITY (LBS) 10 YR. TOTAL 76~80 DAILY RATE 0.00 20.00 UNIT WEIGHT RECLAMATION ACTION .. REPAIR ****** WASTF ITEM NO. 2 FAILED CCT. BKR/LOAD CONTROL UNIT STATE SOLID DENSITY 77.00 LBS/CU. FT. ATTRIBUTES METAL ELEMENTS PRESENT .. FE, CU, AL, ST CCMPOSITION SEMICOND. PLASTICS GENERATION DATA ... QUANTITY (LBS) 10 YR. TOTAL 220.00 DAILY RATE 0.400 UNIT WEIGHT 20.00 RECLAMATION ACTION .. REPAIR ****** WASTE ITEM NO. 3 FAILED CURRENT SENSITIVE ELEMENT STATE SGLID DENSITY 77.00 LBS/CU. FT. ATTRIBUTES METAL ELEMENTS PRESENT .. FE, CU, AL, SI CCMPOSITION SEMICOND.PLASTICS GENERATION DATA ... QUANTITY (LBS)

RECLAMATION ACTION .. REPAIR

10 YR. TOTAL

DAILY RATE UNIT WEIGHT

30.30

0.00 1.50 S/C SUBSYSTEM DISTRIBUTE POWER GROUP KEY 2.2.3

** EQUIPMENT/EXPERIMENT NO. 1POWER DISTRIBUTION SYSTEM

*** WASTE SOURCE NO. 1 POWER DISTRIBUTION SYSTEM

REAKER STATE LANDIVIDUAL LINE CCT. BREAKER

DENSITY 77.00 LBS/CU. FT.

ATTRIBUTES METAL ELEMENTS PRESENT .. FE, CU, AL CCMPOSITION PLASTICS

GENERATION DATA ... QUANTITY (LBS)

10 YR. TOTAL 3.70

DAILY RATE 0.00

UNIT WEIGHT 0.50

RECLAMATION ACTION .. REPLACE

**** WASTE ITEM NO. 5 FAILED MONITOR METER (AC)

STATE SOLID

DENSITY 77.00 LBS/CU. FT.

ATTRIBUTES METAL ELEMENTS PRESENT .. CU, AL, FE,

COMPOSITION SILICA, PLASTICS

GENERATION DATA ... QUANTITY (LBS)

10 YR. TOTAL 0.04

DAILY RATE 0.00

UNIT WEIGHT 0.50

RECLAMATION ACTION .. REPAIR

***** WASTE ITEM NO. 6 ... FAILED MONITOR METER SWITCHES

STATE SOLID

DENSITY 77.00 LBS/CU. FT.

ATTRIBUTES METAL ELEMENTS PRESENT .. CU, AL, FE COMPOSITION PLASTICS

GENERATION DATA ... QUANTITY (LBS)
10 YR. TOTAL 0.04
DAILY RATE 0.00
UNIT WEIGHT 0.25

```
S/C SUBSYSTEM .... DISTRIBUTE POWER
   GROUP KEY .... 2.2.3
** EQUIPMENT/EXPERIMENT NO. 1 .....POWER DISTRIBUTION SYSTEM
**** WASTE SOURCE NO. 1 .... POWER DISTRIBUTION SYSTEM
***** VASTE ITEM NO. 7 .... FAILED REMOTE CONTROL SWITCHES
         STATE ..... SOLID
         DENSITY ..... 77.00 LBS/CU. FT.
         ATTRIBUTES ..... METAL
         ELEMENTS PRESENT .. CUPFE
         CCMPOSITION ..... PLASTICS
                                         QUANTITY (LBS)
         GENERATION DATA ...
                  10 YR. TOTAL
                                           0.47
                  DAILY RATE
                                           0.00
                  UNIT WEIGHT
                                           0.25
         RECLAMATION ACTION .. REPLACE
***** WASTE ITEM NO. 8 .... PACKAGING FOR REPLACEMENT PARTS
         STATE ..... SOLID
         DENSITY .....
                             5.00 LBS/CU. FT.
         ATTRIBUTES .... PLASTIC
         ELEMENTS PRESENT ..
         COMPOSITION ..... PLASTIC SPONGE & SHEETING
         GENERATION DATA ...
                                         QUANTITY (LBS)
                  10 YR. TOTAL
                                           0.00
                  DAILY RATE
                                           0.00
                  UNIT WEIGHT
                                           0.00
         RECLAMATION ACTION .. REUSE AS IS
***** WASTE ITEM NO. 9 .... FAILED CCT.BKR.& GRCUND LEAKAGE DETECTOR
        STATE ..... SOLID
         DENSITY ..... 77.00 LBS/CU. FT.
         ATTRIBUTES ..... METAL
         ELEMENTS PRESENT .. FE, CU, AL, SI
         CCMPOSITION ..... SEMICOND. PLASTICS
         GENERATION DATA ...
                                        QUANTITY (LBS)
                  10 YR. TOTAL
                                          76.80
                  DAILY RATE
                                           0.00
                  UNIT WEIGHT
                                          20.00
         RECLAMATION ACTION .. REPAIR
```

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```
S/C SUBSYSTEM .... DISTRIBUTE PCLER
      GROUP KEY .... 2.2.3
  ** EQUIPMENT/EXPERIMENT NO. 1 .....PGWER DISTRIBUTION SYSTEM
  *** WASTE SCURCE NO. 1 ... PCWER DISTRIBUTION SYSTEM
  ****** WASTE ITEM NO. 10 .... FAILED CCT.BKR.& LOAD CONTROL UNIT
           STATE ..... SOLID
           DENSITY ..... 77.00 LBS/CU. FT.
           ATTRIBUTES ..... METAL
           ELEMENTS PRESENT .. FE, CU, AL, SI
           CCMPOSITION ..... SEMICOND. PLASTICS
           GENERATION DATA ...
                                           QUANTITY (LBS)
                    10 YR. TOTAL
                                             84.80
                    DAILY RATE
                                              0.00
                    UNIT WEIGHT
                                             20.00
           RECLAMATION ACTION .. REPAIR
***** WASTE ITEM NO. 11 .... FAILED CURRENT SENSITIVE ELERENT
           STATE ..... SOLID
           DENSITY ...... 77.00 LBS/CU. FT.
           ATTRIBUTES ..... METAL
           ELEMENTS PRESENT .. FE, CU, AL, SI
           COMPOSITION ..... SEMICOND. PLASTICS
           GENERATION DATA ...
                                           QUANTITY (LBS)
                    10 YR. TOTAL
                                             11.50
                    DAILY RATE
                                              0.00
                    UNIT WEIGHT
                                             12.00
           RECLAMATION ACTION .. REPAIR
  ****** WASTE ITEM NO. 12 .... FAILED INDIVIDUAL LINE CCT. BREAKER
           STATE ..... SCLID
           DENSITY ..... 77.00 LBS/CU. FT.
           ATTRIBUTES ..... METAL
           ELEMENTS PRESENT .. FE CU, AL
           COMPOSITION ..... PLASTIC
           GENERATION DATA ...
                                           QUANTITY (LBS)
                    10 YR. TOTAL
                                              1.40
                                              0.00
                    DAILY RATE
                    UNIT WEIGHT
                                              0.50
```

```
S/C SUBSYSTEM .... DISTRIBUTE POWER
   GROUP, KEY .... 2.2.3
** EQUIPMENT/EXPERIMENT NO. 1 .....POWER DISTRIBUTION SYSTEM
**** WASTE SOURCE NO. 1 .... POWER DISTRIBUTION SYSTEM
***** WASTE ITEM NO. 13 .... FAILED MONITOR METERS
         STATE ..... SOLID
         DENSITY ..... 77.00 LBS/CU. FT.
         ATTRIBUTES ..... METAL
         ELEMENTS PRESENT .. CU, AL, FE,
         COMPOSITION ..... SILICA, PLASTICS
         CENERATION DATA ...
                                         QUANTITY (LBS)
                  10 YR. TOTAL
                                           0.04
                  DAILY RATE
                                           0.00
                  UNIT WEIGHT
                                           0.50
         RECLAMATION ACTION .. REPAIR
***** WASTE ITEM NO. 14 .... FAILED MONITOR METER SWITCHES,
         STATE ..... SCLID
         DENSITY ..... 77.00 LBS/CU. FT.
         ATTRIBUTES .... METAL
         ELEMENTS PRESENT .. FE CU.AL
         COMPOSITION ..... PLASTICS
         GENERATION DATA ...
                                         QUANTITY (LBS)
                  10 YR. TOTAL
                                           0.04
                  DAILY RATE
                                           0.00
                  UNIT WEIGHT
                                           0.25
         RECLAMATION ACTION .. REPAIR
****** WASTE ITEM NO. 15 .... FAILED REMOTE CONTROL SWITCHES
         STATE ..... SOLID
         DENSITY ..... 77.00 LBS/CU. FT.
         ATTRIBUTES ..... METAL
         ELEMENTS PRESENT .. FE, CU
         CCMPOSITICN ..... PLASTICS
         GENERATION DATA ...
                                         QUANTITY (LBS)
                  10 YR. TOTAL
                                           0.18
                  DAILY RATE
                                           0.00
                  UNIT WEIGHT
                                           0.25
```

S/C SUBSYSTEM DISTRIBUTE POWER GROUP KEY 2.2.3

** EQUIPMENT/EXPERIMENT NO. 1POWER DISTRIBUTION SYSTEM **** WASTE SOURCE NO. 1 PCWER DISTRIBUTION SYSTEM

***** WASTE ITEM NO. 16 PACKAGING FOR REPLACEMENT PARTS

STATE SOLID

DENSITY 5.00 LBS/CU. FT. ATTRIBUTES PLASTIC

ELEMENTS PRESENT ..

COMPOSITION PLASTIC SPONGE & SHEETING

GENERATION DATA ... QUANTITY [LBS]

> 10 YR. TOTAL 0.00 DAILY RATE 0.00 UNIT WEIGHT 0.00

RECLAMATION ACTION .. REUSE AS IS

PROVIDE FOR SYSTEM MAINTENANCE AND REPAIR

S/C SUBSYSTEM MAINTENANCE FACILITIES GROUP KEY 2.3.1

BASIC FUNCTION MAINTAIN S/C FUNCTION FUNCTIONAL REQUIREMENT MAINTAIN AND REPAIR SPACE CRAFT

** EQUIPMENT/EXPERIMENT NO. 1 STRUCTURAL MAINTENANCE

S/C AREAS MAINTENANCE

**** WASTE SOURCE NO. 1 STRUCTURAL MAINTENANCE

DOCUMENT NO. 2.3.1.1.1

- REFERENCE NO. 1 .. AIAA PAPER NO.69-1062, SPACE STATION OPER ATIONSREQUIREMENTS AND INTERACTIONS. FRI TZ C. RUNGE, MCDONNELL DOUGLAS ASTRO NAUTICS CO.
- REFERENCE NO. 2 .. ASD-TDR-62-1015, REPAIR OF LEAKS IN AN AEROSPACE ENVIRONMENT, AFSC WRIGHT PATTERSON AFB, OHIO. PROJE CT NO.8170, TASK NO.817005.
- REFERENCE NO. 3 .. N63-18867, SELF-SEALING SPACECRAFT STRUC TURES IN THE METEOROID ENVIRONMENT. N CRITHRUP SPACE LABORATORIES NO.NSL63-64AP RIL 1963, JAMES J. PIECHOCKI
- REFERENCE NO. 4 .. ARS PAPER 2543-62, METROTOID PROTECTION
 FOR SPACE RADIATORS. I.J.LOEFFLER, S.L
 IEBLIEN, N.CLOUGH, NASA LEWIS RESEA
 RCH CENTER, CLEVELAND, OHIO, 1962

***** WASTE ITEM NO. 1 TOWEL/SPONGE
STATE SOLID, SOILED
DENSITY 8.00 LBS/CU. FT.
ATTRIBUTES TEXTILE SHEET
ELEMENTS PRESENT ..

COMPOSITION CELLULOSE GENERATION DATA ...

ENERATION DATA ... QUANTITY (LBS)
10 YR. TOTAL 10.00
DAILY RATE 0.00
UNIT WEIGHT 0.25

RECLAMATION ACTION .. WASH

```
S/C SUBSYSTEM .... MAINTENANCE FACILITIES
    GROUP KEY .... 2.3.1
** EQUIPMENT/EXPERIMENT NO. 1 ..... STRUCTURAL MAINTENANCE
**** WASTE SOURCE NO. 1 .... STRUCTURAL MAINTENANCE
***** WASTE ITEM NO. 2 .... CONTAINERS FOR DETERGENT
         STATE ..... SOLID
         DENSITY .....
                             5.00 LBS/CU. FT.
         ATTRIBUTES ..... PLASTIC BOX
         ELEMENTS PRESENT ..
         COMPOSITION ..... POLYETHYLENE
         GENERATION DATA ...
                                        QUANTITY (LBS)
                  10 YR. TOTAL
                                           0.50
                                           0.00
                  DAILY RATE
                                           0.50
                  UNIT WEIGHT
         RECLAMATION ACTION .. REUSABLE BY REFILLING
***** WASTE ITEM NO._3 .... WATER
         STATE ..... LIQUID
         DENSITY ..... C.OO LBS/CU. FT.
         ATTRIBUTES ..... SOILED
         ELEMENTS PRESENT ..
         COMPOSITION ..... WATER PLUS DETERGENT
                                         QUANTITY (LBS)
         GENERATION DATA ...
                  10 YR. TOTAL
                                         300.00
                  DAILY RATE
                                           0.00
                                           7.50
                  UNIT WEIGHT
         RECLAMATION ACTION .. FILTER
***** WASTE ITEM NO. 4 .... PARTITION FASTNERS
         STATE ..... SOLID
         DENSITY ..... 500.00 LBS/CU. FT.
         ATTRIBUTES ..... METAL
         ELEMENTS PRESENT .. NI CR, FE
         CCMPOSITION .....
                                         QUANTITY (LBS)
         GENERATION DATA ...
                  10 YR. TOTAL
                                           25.00
                  DAILY RATE
                                           0.00
                  UNIT WEIGHT
                                           0.25
         RECLAMATION ACTION .. N/A
```

S/C SUBSYSTEM MAINTENANCE FACILITIES GROUP KEY 2.3.1 ** EQUIPMENT/EXPERIMENT NO. 1STRUCTURAL MAINTENANCE ~*** ∀ASTE SOURCE NO. 1 STRUCTURAL MAINTENANCE ***** WASTE ITEM NO. 5 ANTENNAS AND SOLAR CELLS STATE SOLID DENSITY C.OO LBS/CU. FT. ATTRIBUTES METAL, LARGE, BULKY ELEMENTS PRESENT .. AL,FE,SE,CU COMPOSITION BOROSILICATES GENERATION DATA ... QUANTITY (LBS) 10 YR. TOTAL 0.00 DAILY RATE 0.00 0.00 UNIT WEIGHT RECLAMATION ACTION ... **√** WASTE ITEM NO. 6 GLASS CLOTH PATCH SEPARATORS STATE SOLID DENSITY 65.00 LBS/CU. FT. ATTRIBUTES PLASTIC, INERT SHEET ELEMENTS PRESENT .. CCMPOSITION TEFLON GENERATION DATA ... QUANTITY (LBS) 10 YR. TOTAL 12.50 0.00 DAILY RATE UNIT WEIGHT 0.25 RECLAMATION ACTION .. N/R ***** WASTE ITEM NO. 7 WORN AIRLOCK SEALS STATE SOLID DENSITY 40.00 LBS/CU. FT. ATTRIBUTES PLASTIC, TUBULAR **ELEMENTS PRESENT ...** COMPOSITION RUBBER GENERATION DATA ... QUANTITY (LBS) 10 YR. TOTAL 400.00 DAILY RATE 0.00 UNIT WEIGHT 10.00

RECLAMATION ACTION .. N/R

S/C SUBSYSTEM MAINTENANCE FACILITIES SROUP KEY 2.3.1

***** WASTE ITEM NO. 8 WORN AIRLOCK LATCH MECHANISM ASSEMBLIES

STATE SOLID

DEMSITY 20C.00 LBS/CU. FT.

ATTRIBUTES MEATAL HEAVY

ELEMENTS PRESENT .. FE

COMPOSITION

GENERATION DATA ... QUANTITY (LBS)

10 YR. TOTAL 1000.00 DAILY RATE 0.00 UNIT WEIGHT 50.00

RECLAMATION ACTION .. CVERHAUL

S/C SUBSYSTEM MAINTENANCE FACILITIES GROUP KEY 2.3.1

<u>፠ኯኯዹኯኯኯ፟ጜኯኯኯጚኯዀኯኯኯኯኯኯኯኯኯኯኯኯኯኯኯኯኯኯኯኯኯኯኯኯኯኯኯኯ</u>

** EQUIPMENT/EXPERIMENT NO. 2 AVIONICS SYSTEMS MAINTENANCE

S/C AREAS MAINTENANCE

**** WASTE SOURCE NO. 1 AVIGNICS SYSTEMS MAINTENANCE

DOCUMENT NO. 2.3.1.2.1

- REFERENCE NO. 1 .. STUDY OF SPACE STATION PROPULSION SYSTEM
 RESUPPLY AND REPAIR. BY VICTOR A.
 DES CAMP, MARTIN MARIETTA CORP., DENVE
 R, COLORADO, JAN. 1970
- REFERENCE NO. 2 .. SELECTING BETWEEN REDUNDANCY AND REPAIR
 IN MANNED SPACECRAFT. MEMORANDUM RM-4
 325-NASA, THE RAND CORPORATION, SANTA
 MONICA, CALIFORNIA, SEPT. 1964
- REFERENCE NO. 3 .. THE REQUIREMENT FOR MAINTAINABLE ELECTRO NICS ON LONG DURATION MANNER SPACE MISS ICNS. BY M.L. JOHNSON, AIAA PAPER A70-2 4895

S/C SURSYSTEM MAINTENANCE FACILITIES GROUP KEY 2.3.1

** ,E JUIPMENT/EXPERIMENT No. 3 UTILITIES MAINTENANCE

S/C AREAS MAINTENANCE

PROVIDE COMMUNICATION AND NAVIGATION

S/C SUBSYSTEM SHIP-TO-BASE COMMUNICATIONS FROUP KEY 2.4.1

BASIC FUNCTION MAINTAIN S/C FUNCTION FUNCTIONAL REQUIREMENT PROVIDE COMMUNICATION

** E QUIPMENT/EXPERIMENT NO. 1 TO AND FROM GROUND-DATA RELAY SP ACE SATELLITES

S/C AREAS CGMMUNICATIONS

**** WASTE SOURCE NO. 1 TO AND FROM GROUND-DATA RELAY SPACE SATE

DOCUMENT NO. 2.4.1.1.1*

REFERENCE NO. 1 .. COMMUNICATION SUBSYSTEM-PRELIMINARY DESI GN SHEET FOR SPACE STATION PROGRAM MC DO NNELL DOUGLAS CORP.

REFERENCE NO. 2 .. WEIGHT, VOLUME AND RELIABILITY TABLES FOR THE EQUIPMENTS COMPRISING THE SPACE STATICN CCMMUNICATIONS SUBSYSTEM-COLLINS RADIO CO. LETTER DATED MAY 18, 1970.

REFERENCE NO. 3 .. MSFC-DRL-160 LINE ITEM 13 PRELIMINARY SY STEMS DESIGN DATA VOLUME 1, SPACE STATION PRELIMINARY DESIGN BOOK 2, ELECTRONICS MDC GO634.

**** WASTE ITEM NO. 1 FAILED KU BAND REFLECTOR, FEEDEPOSITIONER

STATE SOLID

DENSITY 50.00 LBS/CU. FT.

ATTRIBUTES METAL, PLASTIC

ELEMENTS PRESENT .. AL, CU, FE

CCMPOSITION PLASTIC

OCHOOLITICAL DITE

GENERATION DATA ... QUANTITY (LBS)
10 YR. TOTAL 1408.00

DAILY RATE 0.00
UNIT WEIGHT 440.00

S/C SUBSYSTEM SHIP-TO-BASE CCMMUNICATIONS GROUP KEY 2.4.1

** EQUIPMENT/EXPERIMENT NO. 1TO AND FROM GROUND-DATA RELAY SP ACE SATELLITES

**** WASTE SOURCE NO. 1 TO AND FRCM GROUND-DATA RELAY SPACE SATE LLITES

***** WASTE ITEM NO. 2 FAILED KU BAND MIXER/MULTIPLEXER

STATE SOLID

DENSITY 6C.OO LBS/CU. FT.

ATTRIBUTES METAL, PLASTIC

ELEMENTS PRESENT .. AL, CU, FE,

CCMPOSITION PLASTIC

GENERATION DATA ... QUANTITY (LBS)

10 YR. TOTAL 8.80 DAILY RATE 0.00 UNIT WEIGHT 20.00

RECLAMATION ACTION .. REPAIR

***** WASTE ITEM NO. 3 FAILED KU BAND FERRITE SWITCHERS EQUADRUP

STATE SOLID

DENSITY 6C.00 LBS/CU. FT.

ATTRIBUTES METAL, PLASTIC

ELEMENTS PRESENT .. AL, CU, FE,

COMPOSITION PLASTICS

GENERATION DATA ... QUANTITY (LBS)

10 YR. TOTAL 1.40 DAILY RATE 0.00 UNIT WEIGHT 6.00

RECLAMATION ACTION .. REPAIR

***** WASTE ITEM NO. 4 FAILED KU BAND FM TRANSMITTER

STATE SOLID

DENSITY 108.00 LBS/CU. FT.

ATTRIBUTES METAL ELEMENTS PRESENT .. AL, CU, FE

COMPOSITION PLASTIC

GENERATION DATA ... QUANTITY (LBS)

10 YR. TOTAL 60.00 DAILY RATE 0.00 UNIT WEIGHT 25.00

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S/C SUBSYSTEM .... SHIP-TO-BASE CCMMUN'CATIONS
   3ROUP KEY .... 2.4.1
** E JUIPMENT/EXPERIMENT NO. 1 .....TO AND FROM GROUND-DATA RELAY SP
                                  ACE SATELLITES
*** WASTE SOURCE NO. 1 ... TO AND FRCM GROUND-DATA RELAY SPACE SATE
                           LLITES
**** WASTE ITEN NO. 5 ... FAILED FM TRANSMITTER MODEM
         STATE ..... SCLID
         DENSITY ..... 58.00 LBS/CU. FT.
         ATTRIBUTES ..... PETAL
         ELEMENTS PRESENT .. AL, CU, SI,
         COMPOSITION ..... PLASTIC
                                        QUANTITY (LBS)
         GENERATION DATA ...
                  10 YR. TOTAL
                                           6.60
                                           0.00
                  DAILY RATE
                  UNIT WEIGHT
                                          10.00
         RECLAMATION ACTION .. REPAIR
❖❖❖❖、❖ WASTE ITEM NO。 6 ... FAILED KU BAND FM RECEIVER
         STATE ..... SOLID
         DENSITY ..... 58.00 LBS/CU. FT.
         ATTRIBUTES .... PETAL
         ELEMENTS PRESENT .. AL, CU
         COMPOSITION ..... PLASTIC
         GENERATION DATA ...
                                        QUANTITY (LBS)
                  10 YR. TOTAL
                                           2,40
                  DAILY RATE
                                           0.00
                  UNIT WEIGHT
                                          10.00
        RECLAMATION ACTION .. REPAIR
***** WASTE ITEM NO. 7 ... FAILED FM RECEIVER MODEM
         STATE ..... SOLID
         DENSITY .....
                           C.OO LBS/CU. FT.
         ATTRIBUTES ..... METAL
         ELEMENTS PRESENT .. AL, CU
         COMPOSITION ..... PLASTIC
                                         QUANTITY (LBS)
         GENERATION DATA ...
                  10 YR. TOTAL
                                           1.90
                  DAILY RATE
                                           0.00
                  UNIT WEIGHT
                                           5.00
         RECLAMATION ACTION .. REPAIR
```

S/C SUBSYSTEM SHIP-TO-BASE COMMUNICATIONS GROUP KEY 2.4.1 ** EQUIPMENT/EXPERIMENT NO. 1TO AND FROM GROUND-DATA RELAY SP ACE SATELLITES **** WASTE SOURCE NO. 1 TO AND FROM GROUND-DATA RELAY SPACE SATE LLITES ***** WASTE ITFM NO. 8 FAILED KU BAND OM TRANSMITTER STATE SOLID DENSITY 86.00 LBS/CU. FT. ATTRIBUTES METAL ELEMENTS PRESENT .. AL, CU, FE COMPOSITION PLASTIC, CERAM. QUANTITY (LBS) GENERATION DATA ... 10 YR. TOTAL 2.20 DAILY RATE 0.00 UNIT WEIGHT 10.00 RECLAMATION ACTION .. REPAIR ***** WASTE ITEM NO. 9 ... FAILED PM TRANSMITTER MODEM STATE SOLID DENSITY 72.00 LBS/CU. FT. ATTRIBUTES METAL ELEMENTS PRESENT .. AL, CU COMPOSITION PLASTIC QUANTITY (LBS) GENERATION DATA ... 10 YR. TOTAL 1.00 DAILY RATE 0.00 UNIT WEIGHT 2.50 RECLAMATION ACTION .. REPAIR ****** WASTE ITEM NO. 10 FAILED KU BAND PM RECEIVER STATE SOLID DENSITY 86.00 LBS/CU. FT. ATTRIBUTES METAL ELEMENTS PRESENT .. AL, CU COMPOSITION PLASTIC GENERATION DATA ... QUANTITY (LBS) 10 YR. TOTAL 2.80 DAILY RATE 0.00 UNIT WEIGHT 10.00

S/C SUBSYSTEM SHIP-TO-BASE COMMUNICATIONS SROUP KEY 2.4.1

** EQUIPMENT/EXPERIMENT NO. 1TD AND FROM GROUND-DATA RELAY SP ACE SATELLITES

**** haste source no. 1 TO AND FROM GROUND-DATA RELAY SPACE SATE

**** v'ASTE ITEN NJ. 11 FAILED PM RECEIVER MCDEM

STATE SOLID

DENSITY 58.00 LBS/CU. FT.

ATTRIBUTES METAL ELEMENTS PRESENT .. AL OCU COMPOSITION PLASTIC

GENERATION DATA ... QUANTITY (LBS)

10 YR. TOTAL 3.30 DAILY RATE 0.00 UNIT WEIGHT 5.00

RECLAMATION ACTION .. REPAIR

**** * WASTE ITEM NO. 12 PACKAGING FOR REPLACEMENT PARTS

STATE SOLID

DENSITY 5.00 LBS/CU. FT.

ATTRIBUTES PLASTIC

ELEMENTS PRESENT ...

CGMPOSITION PLASTIC SPONGE AND SHEETING GENERATION DATA ... QUANTITY (LBS)

10 YR. TOTAL 0.00
DAILY RATE 0.00
UNIT WEIGHT 0.00

RECLAMATION ACTION .. REUSE AS IS

S/C SUBSYSTEM SHIP-TO-BASE COMMUNICATIONS GROUP KEY 2.4.1

** EQUIPMENT/EXPERIMENT NO. 2 TO AND FROM GROUND-DIRECT

S/C AREAS COMMUNICATIONS

**** WASTE SOURCE NO. 1 TO AND FROM GROUND-DIRECT

DOCUMENT NO. 2.4.1.2.1*

REFERENCE NO. 1 .. COMMUNICATIONS SUBSYSTEM-PRELIMINARY DES IGN SHEET FOR SPACE STATION PROGRAM-MC D ONNELL DOUGLAS CORP.

REFERENCE NO. 2 .. WEIGHT, VOLUME AND RELIABILITY TABLES FOR THE EQUIPMENTS COMPRISING THE SPACE STATION COMMUNICATIONS SUBSYSTEN-COLLINS RADIC CO. LETTER DATED MAY 18,1970.

REFERENCE NO. 3 .. MSFC-DRL-160 LINE 1TEM 13 PRELIMINARY DE SIGN, BCDK 2, ELECTRONICS MDC GO634.

***** WASTE ITEM NO. 1 FAILED S-BAND OMNI-DIRECTIONAL ANTENNAE STATE SOLID

DENSITY 25.00 LBS/CU. FT.

ATTRIBUTES METAL

ELEMENTS PRESENT .. AL

COMPOSITION PLASTIC

GENERATION DATA ... QUANTITY (LBS)

10 YR. TOTAL 0.14
DAILY RATE 0.00
UNIT WEIGHT 2.00

RECLAMATION ACTION .. REPLACE

***** WASTE ITEM NO. 2 FAILED S-BAND DIPLEXER/SWITCHES

STATE SOLID

DENSITY 62.00 LBS/CU. FT.

ATTRIBUTES METAL

ELEMENTS PRESENT .. AL FE, CU

CGMPDSITION

GENERATION DATA ... QUANTITY (LBS)

10 YR. TOTAL 0.84
DAILY RATE 0.00
UNIT WEIGHT 6.00

S/C SUBSYSTEM SHIP-T J-RASE COMMUNICATIONS GROUP KEY 2.4.1

** E JUIP 1ENT/EXPERIMENT NO. 2TO AND FROM GROUND-DIRECT **** WASTE SOURCE NO. 1 ... TO AND FROM GROUND-DIRECT

PACE 159

**** WASTE ITEM AD. 3 FAILED S-PAND FERRITE SWITCHES

STATE SCLID

DENSITY 6C.OD LBS/CU. FT.

ATTRIBUTES METAL ELEMENTS PRESENT .. AL, FE, CU

CUMPOSITION

GENERATION DATA ... QUANTITY (LBS)

10 YR. FOTAL 0.07 DATLY RATE 0.00 UNIT WEIGHT 5.50

RECLAMATION ACTION .. REPAIR

**** ** WASTE ITEM NO. 4 ... FAILED S-BAND PM TRANSPONDER

STATE SOLID

DENSITY 8C.OO LAS/CU. FT.

ATTRIBUTES METAL

ELEMENTS PRESENT .. ALCU, FE, SI

CGMPOSITION

GENERATION DATA ... QUANTITY (LBS)

> 47.00 10 YR TOTAL DAILY RATE 0.00 UNIT WEIGHT 14.00

RECLAMATION ACTION .. REPAIR

***** WASTE ITEM NO. 5 FAILED S-BAND FM TRANSMITTER

STATE SOLID

DENSITY 58.00 LBS/CU. FT.

ATTRIBUTES METAL

ELEMENTS PRESENT .. AL, CU, FE, ST

COMPOSITION

GENERATION DATA ... QUANTITY (LBS)

10 YR. TOTAL 42.00 DAILY RATE 0.00 UNIT WEIGHT 12.00

```
S/C SUBSYSTEM .... SHIP-TO-BASE COMMUNICATIONS
   GROUP KEY .... 2.4.1
** EQUIPMENT/EXPERIMENT NO. 2 .....TO AND FROM GROUND-DIRECT
**** WASTE SDURCE ND. 1 .... TO AND FROM GROUND-DIRECT
***** WASTE ITEM NO. 6 ... FAILED TRANSPONDER
         STATE ..... SOLID
         DENSITY ..... 60.00 LBS/CU. FT.
         ATTRIBUTES .... METAL
         ELEMENTS PRESENT .. AL, CU, FE, SI
         COMPOSITION .....
         GENERATION DATA ...
                                        QUANTITY (LBS)
                  10 YR. TOTAL
                                          12.00
                  DAILY RATE
                                           0.00
                  UNIT WEIGHT
                                          10.00
         RECLAMATION ACTION .. REPAIR
***** WASTE ITEM NO. 7 ... FAILED TRANSMITTER MODEM
         STATE ..... SOLID
         DENSITY ..... 73.00 LBS/CU. FT.
         ATTRIBUTES ..... METAL
         ELEMENTS PRESENT .. AL CU, FE, SI
         COMPOSITION .....
         GENERATION DATA ...
                                        QUANTITY (LBS)
                  10 YR. TOTAL
                                           1.50
                  DAILY RATE
                                           0.00
                  UNIT WEIGHT
                                           2.50
         RECLAMATION ACTION .. REPAIR
***** WASTE ITEM NO. 8 .... PACKAGING FOR REPLACEMENT PARTS
         STATE ..... SOLID
         DENSITY ..... 5.00 LBS/CU. FT.
         ATTRIBUTES .... PLASTIC
         ELEMENTS PRESENT ..
         COMPOSITION ..... PLASTIC SPONGE AND SHEETING
         GENERATION DATA ...
                                        QUANTITY (LBS)
                  10 YR. TOTAL
                                           0.00
                  DAILY RATE
                                           0.00
                  UNIT WEIGHT
                                           0.00
         RECLAMATION ACTION .. REUSE AS IS
```

S/C SUBSYSTEM INTER-VEHICULAR COMMUNICATIONS GROUP KEY 2.4.2

BASIC FUNCTION MAINTAIN S/C FUNCTION FUNCTIONAL REQUIREMENT PROVIDE COMMUNICATION

** E JUIPMENT/EXPERIMENT NO. 1 TO AND FROM EXPERIMENT MCDULES

S/C AREAS COMMUNICATIONS

***⊁ WASTE SOURCE NO. 1 TO AND FRCM EXPERIMENT MODULES

DUCUMENT NO. 2.4.2.1.1*

REFERENCE NO. 1 .. COMMUNICATION SUBSYSTEM - PRELIMINARY DE SIGN SHEET FOR SPACE STATION PROGRAM - M CDENNELL DEUGLAS CORP.

REFERENCE NO. 2 .. WEIGHT, VOLUME, AND RELIABILITY TABLES F
OR THE EQUIPMENTS COMPRISING THE SPACE S
TATION COMMUNICATIONS SUBSYSTEM - COLLIN
RADIO COMPANY LETTER DATED MAY 18, 197

REFERENCE NO. 3 .. MSFC-DRL-160 LINE ITEM 13 - PRELIMINARY SYSTEMS DESIGN DATA, VOLUME 1. SPACE STATION PRELIMINARY DESIGN - BOOK 2, ELECTRONICS, MDC G0634.

**** WASTE ITEM NO. 1 FAILED UHF CMNI-DIRECTIONAL ANTENNAE

STATE SOLID

- DENSITY 25.00 LBS/CU. FT.

ATTRIBUTES METAL ELEMENTS PRESENT .. AL

COMPOSITION PLASTIC

GENERATION DATA ... QUANTITY (LBS)

10 YR. TOTAL 0.70 DAILY RATE 0.00 UNIT WEIGHT 10.00

```
S/C SUBSYSTEM .... INTER-VEHICULAR COMMUNICATIONS
   3ROUP KEY .... 2.4.2
** EQUIPMENT/EXPERIMENT NO. 1 .....TO AND FROM EXPERIMENT MCDULES
**** KASTE SOURCE NO. 1 .... TO AND FROM EXPERIMENT MODULES
****** WASTE ITEM NO. 2 .... FAILED UHF POWER DIVIDER
         STATE ..... SOLID
         DENSITY ...... 25.00 LBS/CU. FT.
         ATTRIBUTES .... METAL
         ELEMENTS PRESENT .. AL
         COMPOSITION .....
         GENERATION DATA ...
                                        QUANTITY (LBS)
                                           0.07
                 10 YR. TOTAL
                DAILY RATE
                                           0.00
                  UNIT WEIGHT
                                           2.00
         RECLAMATION ACTION .. REPLACE
***** WASTE ITEM NO. _3 .... UHF SOLID STATE SWITCH MULTIPLEXER
         STATE ..... SOLID
         DENSITY ..... 50.00 LBS/CU. FT.
         ATTRIBUTES .... METAL
         ELEMENTS PRESENT .. AL, CU, FE, SI
         COMPOSITION ..... PLASTIC
         GENERATION DATA ...
                                         QUANTITY (LBS)
                  10 YR. TOTAL
                                           0.84
                  DAILY RATE
                                           0.00
                  UNIT WEIGHT
                                          12.00
         RECLAMATION ACTION .. REPAIR
***** WASTE ITEM NO. 4 .... FAILED UHF FM TRANSMITTER
         STATE ..... SOLID
         DENSITY ...... 130.00 LBS/CU. FT.
         ATTRIBUTES ..... METAL
         ELEMENTS PRESENT .. AL, CU, FE, SI
         COMPOSITION ..... PLASTIC
         GENERATION DATA ...
                                         QUANTITY (LBS)
                  10 YR. TOTAL
                                           0.20
                  DAILY RATE
                                           0.00
                  UNIT WEIGHT
                                           1.50
         RECLAMATION ACTION .. REPAIR
```

S/C SUBSYSIEM INTER-VEHICULAR COMMUNICATIONS GROUP KEY 2.4.2 ** EQUIPMENT/EXPERIMENT NO. 1TO AND FROM EXPERIMENT MODULES **** WASTE SOURCE NO. 1 TO AND FROM EXPERIMENT MODULES *** ** WASTE ITEM NO. 5 ... FAILED UHF TRANSMITTER MODEM STATE SOLID DENSITY 86.00 LBS/CU. FT. ATTRIBUTES METAL FLEMENTS PRESENT .. AL, CU, FE, SI COMPOSITION PLASTIC QUANTITY (LBS) GENERATION DATA ... 10 YR. TOTAL 0.56 DAILY RATE 00.00 2.00 UNIT WEIGHT RECLAMATION ACTION .. REPAIR **** WASTE ITEM NO. 6 FAILED UHF FM VIDEO RECEIVER STATE SOLID PENSITY 130.00 LBS/CU. FT. ATTRIBUTES METAL ELEMENTS PRESENT .. AL, CU, FE, SI COMPOSITION PLASTIC QUANTITY (LBS) CENERATION DATA ... 10 YR. TOTAL 3.50 DAILY RATE 0.00 UNIT WEIGHT 3.00 RECLAMATION ACTION .. REPAIR ***** WASTE ITEM NO. 7 FAILED UHF PM DATA RECEIVER STATE SGLID DENSITY 130.00 LBS/CU. FT. ATTRIBUTES METAL ELEMENTS PRESENT .. AL, CU, FE, SI COMPOSITION PLASTIC GENERATION DATA ... QUANTITY (LBS)

10 YR. TOTAL

DAILY RATE

RECLAMATION ACTION .. REPAIR

UNIT WEIGHT

3.40

0.00

3.00

```
S/C SUBSYSTEM .... INTER-VEHICULAR COMMUNICATIONS
    GROUP KEY .... 2.4.2
** EQUIPMENT/EXPERIMENT NO. 1 .....TO AND FROM EXPERIMENT MODULES
**** WASTE SCURCE NO. 1 ... TO AND FROM EXPERIMENT MODULES
***** WASTE ITEM NO. 8 .... FAILED VIDEO RECEIVER MCDEM
         STATE ..... SCLID
         DENSITY ..... 72.00 LBS/CU. FT.
         ATTRIBUTES .... METAL
         ELEMENTS PRESENT .. AL, CU, FE, SI
         COMPOSITION ..... PLASTIC
         GENERATION DATA ...
                                        QUANTITY (LBS)
                  10 YR. TOTAL
                                           8.60
                  DAILY RATE
                                           0.00
                  UNIT WEIGHT
                                           2.50
         RECLAMATION ACTION .. REPAIR
****** WASTE ITEM NO. 9 .... FAILED DATA RECEIVER MODEM
         STATE ...... SCLID
         DENSITY ..... 72.00 LBS/CU. FT.
         ATTRIBUTES .... PETAL
         ELEMENTS PRESENT .. AL, CU, FE, SI
         COMPOSITION ..... PLASTIC
         GENERATION DATA ...
                                        QUANTITY (LBS)
                  10 YR. TOTAL
                                           5.70
                  DAILY RATE
                                           0.00
                  UNIT WEIGHT
                                           2.50
         RECLAMATION ACTION .. REPAIR
***** WASTE ITEM NO. 10 .... PACKAGING FOR REPLACEMENT PARTS
         STATE ..... SOLID
         DENSITY ..... 5.00 LBS/CU. FT.
         ATTRIBUTES .... PLASTIC
         ELEMENTS PRESENT ..
         COMPOSITION ..... PLASTIC SPONGE, SHEETING
         GENERATION DATA ...
                                        QUANTITY (LBS)
                  10 YR. TOTAL
                                           0.00
                  DAILY RATE
                                           0.00
                  UNIT WEIGHT
                                           0.00
        RECLAMATION ACTION ...
```

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PAGE 165
S/C SUBSYSTEM .... INTER-VEHICULAR COMMUNICATIONS
   GROUP KEY .... 2.4.2
** EQUIPMENT/EXPERIMENT NO. 2 ..... TO AND FROM SPACE STATION SHUTTL
         S/C AREAS ..... COPMUNICATIONS
**** WASTE SOURCE NO. 1 .... TO AND FROM SPACE STATION SHUTTLE
         COCUMENT NO. ..... 2.4.2.2.1*
         REFERENCE NO. I .. COMMUNICATION SUBSYSTEM - PRELIMINARY DE
                           SIGN SHEFT FOR SPACE STATION PROGRAM - M
                           CDENNELL DOUGLAS CORP.
         REFERENCE NO. 2 .. WEIGHT, VOLUME, AND RELIABILITY TABLES FO
                           R THE EQUIPMENTS COMPRISING THE SPACE ST
                           ATION CCMMUNICATIONS SUBSYSTEM - COLLINS
                           RADIO COMPANY LETTER DATED MAY 18, 1970
         REFERENCE NO. 3 .. MSFC-DRL-160 LINE ITEM 13 - PRELIMINARY
                           SYSTEMS DESIGN DATA, VOLUME 1. SPACE STA
                           TICN PRELIMINARY DESIGN - BOOK 2, ELECTR
                           DNICS, MDC G0634.
**** WASTE ITEM NJ. 1 .... FATLED VHF OMNI-DIRECTIONAL ANTENNAE
         STATE ..... SOLID
         DENSITY ..... 25.00 LBS/CU. FT.
         ATTRIBUTES .... METAL
         ELEMENTS PRESENT .. AL
         CCMPOSITICN ..... PLASTIC
         GENERATION DATA ...
                                        QUANTITY (LBS)
                  10 YR. TOTAL
                                           1.05
                  DAILY RATE
                                           0.00
                  UNIT WEIGHT
                                          15.00
         RECLAMATION ACTION .. REPLACE
**** WASTE ITEM NO. 2 .... SOLID STATE SWITCH/QUADRUPLEXER
         STATE ..... SOLID
         DENSITY ..... 50.00 LBS/CU. FT.
         ATTRIBUTES .... METAL
         ELEMENTS PRESENT .. AL, FE, SI
         COMPOSITION ..... PLASTIC
```

QUANTITY (LBS)

0.84

0.00

12.00

GENERATION DATA ...

10 YR. TOTAL

DAILY RATE

UNIT WEIGHT

```
S/C SUBSYSTEM .... INTER-VEHICULAR COMMUNICATIONS
    GROUP KEY .... 2.4.2
** EQUIPMENT/EXPERIMENT NO. 2 .....TO AND FROM SPACE STATION SHUTTL
                                   Ε
**** WASTE SOURCE NO. 1 .... TO AND FROM SPACE STATION SHUTTLE
*************************
***** WASTE ITEM NO. 3 .... FAILED VHF VOICE RANGING T/R
         STATE ..... SOLID
         DENSITY ..... 58.00 LBS/CU. FT.
         ATTRIBUTES .... METAL
         FLEMENTS PRESENT .. AL, CU, FE, SI
         CCMPOSITION ..... PLASTIC
         GENERATION DATA ...
                                         QUANTITY (LBS)
                  10 YR. TOTAL
                                           84.00
                  DAILY RATE
                                           0.00
                  UNIT WEIGHT
                                           15.00
         RECLAMATION ACTION .. REPAIR
***** WASTE ITEM NO. 4 .... FAILED RANGING MODEM
         STATE ..... SOLID
         DENSITY ..... 54.00 LBS/CU. FT.
         ATTRIBUTES .... METAL
         ELEMENTS PRESENT .. AL, CU, FE, SI
         COMPOSITION ..... PLASTIC
         GENERATION DATA
                                         QUANTITY (LBS)
                  10 YR. TOTAL
                                          40.00
                  DAILY RATE
                                            0.00
                  UNIT WEIGHT
                                            9.00
         RECLAMATION ACTION .. REPAIR
**** WASTE ITEM NO. 5 .... FAILED VOICE MODEM
         STATE ..... SOLID
         DENSITY ..... 54.00 LBS/CU. FT.
         ATTRIBUTES ..... METAL
         ELEMENTS PRESENT .. AL, CU, FE, SI
         CCMPOSITION ..... PLASTIC
         GENERATION DATA ...
                                         QUANTITY (LBS)
                  10 YR. TOTAL
                                            3.80
                  DAILY RATE
                                            0.00
                  UNIT WEIGHT
                                            5.00
         RECLAMATION ACTION .. REPAIR
```

S/C SUBSYSIEM INTER-VEHICULAR COMMUNICATIONS GROUP KEY 2.4.2 ** EQUIPMENT/EXPERIMENT NO. 2TO AND FROM SPACE STATION SHUTTL E キニナネ VASTE SOURCE N')。 1 TO AND FROM SPACE STATION SHUTTLE ***** WASTE ITEM NO. 6 FAILED WHE DATA TIR! STATE SULID DENSITY 58.00 LBS/CU. FT. ATTRIBUTES MEIAL ELEMENIS PRESENT .. AL, CU, FE, SI CCMPOSITION PLASTIC GENERATION DATA ... QUANTITY (LBS) 10 YR. TOTAL 84.00 DAILY RATE 0.00 UNIT WEIGHT 15.00 RECLAMATION ACTION .. REPAIR **** WASTE ITEM NO. 7 FAILED DATA MODEM STATE SOLID DENSITY 55.00 LBS/CU. FT. ATTRIBUTES METAL ELFMENTS PRESENT .. AL, CU, FE, SI COMPOSITION PLASTIC GENERATION DATA ... QUANTITY (LBS) 10 YR. INTAL 1.70 DAILY RATE 0.00 UNIT WEIGHT 4.00 RECLAMATION ACTION .. REPAIR ' **** WASTE ITEM NJ. 8 ... PACKAGING FOR REPLACEMENT PARTS STATE SOLID DENSITY 5.00 LBS/CU. FT. ATTRIBUTES PLASTIC ELEMENTS PRESENT .. CCMPOSITION PLASTIC GENERATION DATA ... QUANTITY (LBS)

0.00

0.00

0.00

10 YR. TOTAL

DAILY RATE

UNIT WEIGHT

PECLAMATICN ACTION ..

```
S/C SUBSYSTEM .... INTER-VEHICULAR COMMUNICATIONS
   GROUP KEY .... 2.4.2
** EQUIPMENT/EXPERIMENT NO. 3 .... EXTRA-VEHICULAR COMMUNICATIONS
         S/C AREAS ..... COMMUNICATIONS
**** WASTE SOURCE NJ. 1 ... EXTRA-VEHICULAR COMMUNICATIONS
         DOCUMENT NO. ..... 2.4.2.3.1*
         REFERENCE NO. 1 .. COPMUNICATION SUBSYSTEM - PRELIMINARY DE
                           SICN SHEET FOR SPACE STATION PROGRAM - M
                           CDENNELL DOUGLAS CORP.
         REFERENCE NO. 2 .. WEIGHT, VOLUME, AND RELIABILITY TABLES F
                           OR THE EQUIPMENT COMPRISING THE SPACE ST
                           ATION COMMUNICATIONS SUBSYSTEM - COLLINS
                            RADIO CCMPANY LETTER DATED MAY 18: 1970
         REFERENCE NO. 3 .. MSFC-DRL-160 LINE ITFM 13 - PRELIMINARY
                           SYSTEMS DESIGN DATA, VCLUME 1. SPACE STA
                           TICN PRELIMINARY DESIGN - BOOK 2, ELECTR
                           ONICS MDC G0634.
***** WASTE ITEM NO. 1 ... FAILED OMNI-DIRECTICNAL ANTENNAE
         STATE ..... SOLID
         DENSITY ..... 25.00 LBS/CU. FT.
         ATTRIBUTES ..... METAL
         ELEMENTS PRESENT .. AL
         COMPOSITION ..... PLASTIC
         GENERATION DATA ...
                                         QUANTITY (LBS)
                  10 YR. TOTAL
                                            1.05
                  DAILY RATE
                                            0.00
                  UNIT WEIGHT
                                           15.00
         RECLAMATION ACTION .. REPLACE
***** WASTE ITEM NO. 2 .... FAILED SOLID STATE SWITCH/DUPLEXER
         STATE ..... SOLID
         DENSITY ..... 5C.00 LBS/CU. FT.
         ATTRIBUTES ..... METAL
         ELEMENTS PRESENT .. AL, FE, SI
         COMPOSITION ..... PLASTIC
         GENERATION DATA ...
                                         QUANTITY (LBS)
```

1.26

0.00

18.00

10 YR. TOTAL

DAILY RATE

RECLAMATION ACTION .. REPAIR

UNIT WEIGHT

```
S/C SURSYSTEM .... INTER-VEHICULAR COMMUNICATIONS
   3ROUP KEY .... 2.4.2
** E JUIPMENT/FXPERIMENT NO. 3 ....FXTIA~VEHICULAR COMMUNICATIONS
**** WASTE SOURCE NO. 1 .... EXTRA-VEHICULAR COMMUNICATIONS
***** WASTE ITEM NO. 3 .... FAILED WHF FM XMTR/PCVR
         STATE ..... SOLID
         DENSITY ..... 7C.00 LBS/CU. FT.
         ATTRIBUTES .... METAL
         FLEMENTS PRESENT .. AL. CU, FE, SI
         COMPOSITION ..... PLASTIC
         GENERATION DATA ...
                                        QUANTITY (LBS)
                  10 YR. TOTAL
                                           1.64
                  DAILY RATE
                                           0.00
                  UNIT WEIGHT
                                           2.00
         RECLAMATION ACTION .. REPAIR
**-** WASTE ITEM NO. 4 .... FAILED MODEM
         STATE ..... SOLID
         DENSITY ..... 7C.00 LBS/CU. FT.
         ATTRIBUTES .... METAL
         FLEMENTS PRESENT .. AL, CU, FE, SI
         CCYPOSITION ..... PLASTIC
         GENERATION DATA ...
                                      - QUANTITY (LBS)
                  10 YR. TOTAL
                                           6.56
                  DAILY RATE
                                           0.00
                  UNIT WEIGHT
                                           8.00
         RECLAMATION ACTION .. REPAIR
❖❖❖ˇ❖❖ ₩ASTE ITEM NO. 5 .... PACKAGING FOR REPLACEMENT PARTS
         STATE ..... SOLID
         DENSITY ......
                             5.00 LBS/CU. FT.
         ATTRIBUTES ..... PLASTIC
         FLEMENTS PRESENT ..
         COMPOSITION ..... PLASTIC SPONGE, SHEETING
         GENERATION DATA ...
                                        QUANTITY (LBS)
                  10 YR. TOTAL
                                           0.00
                  DAILY RATE
                                           0.00
                  UNIT WEIGHT
                                           0.00
         RECLAMATION ACTION .. REUSE AS IS
```

S/C SUBSYSTEM INTRA-VEHICULAR COMMUNICATIONS SROUP KEY 2.4.3

BASIC FUNCTION MAINTAIN S/C FUNCTION FUNCTIONAL REQUIREMENT PROVIDE COMMUNICATION

** EQUIPMENT/EXPERIMENT NO. 1 ONBOARD COMMUNICATIONS

S/C AREAS COMMUNICATIONS

**** WASTE SOURCE NO. 1 ONBOARD CCMMUNICATIONS

CDCUMENT NO. 2.4.3.1.1

REFERENCE NO. 1 .. CCMMUNICATION SUBSYSTEM PRIMARILY DESIGN
SHEET FOR SPACE STATIGN PROGRAM MCDONNELL DOUGLAS CORP.

REFERENCE NO. 2 .. WEIGHT, VCLUME AND RELIABILITY TACLES FOR THE EQUIPMENTS COMPRISING THE SPACE ST ATICN COMMUNICATIONS SUBSYSTEM COLLINS RADIO COMPANY LETTER DATED MAY 18, 19

REFERENCE NO. 3 .. MSFC-DRL-160 LINE ITEM 13

PRELIMINARY SYSTEMS DESIGN DATA VO

LUME 1 SPACE STATION PRELIMINARY DESIG

N - BOOK 2 - ELECTRONICS MDC G0634

**** WASTE ITEM NO. 1 FAILED AUDIO/CONTROL MODEM

STATE SOLID

DENSITY 72.00 LBS/CU. FT.

ATTRIBUTES METAL

ELEMENTS PRESENT ..

COMPOSITION SEMI-COND. PLASTICS

GENERATION DATA ... QUANTITY (LBS)

10 YR. TDTAL 57.60
DAILY RATE 0.00
UNIT WEIGHT 4.00

```
S/C SUBSYSTEM .... INTRA-VFHICULAR COMMUNICATIONS
    GRCUP KEY ..... 2.4.3
** E JUIPMENT/EXPERIMENT NO. 1 .....へROARD COMMUNICATIONS
 *** WASTE SOURCE NO. 1 ... CNBCARD COMMUNICATIONS
 ❖❖❖❖❖ WASTE ITEM NO. 2 .... FAILED TV CONTROL MODEM
          STATE ..... SOLID
          DENSITY ..... 72.00 LBS/CU. FT.
          ATTRIBUTES .... METAL
          FLEMENTS PRESENT .. AL, CU, FE, SI
          CCMPOSITION ..... SEMI-COND. PLASTIC
          GENERATION DATA ...
                                          QUANTITY (LBS)
                   10 YR. TOTAL
                                            17.10
                   DAILY RATE
                                             0.00
                   UNIT WEIGHT
                                             3.00
          RECLAMATION ACTION ... REPAIR
*3 ** * WASTE- ITEM NO. 3 .... FAILED ANALOG SYNC/TEST MODEM
          STATE ..... SOLID
          DENSITY ..... 72.00 LBS/CU. FT.
          ATTPIBUTES .... METAL
          ELEMENTS PRESENT .. AL, CU, FE, SI
          COMPOSITION ..... SEMI-COND. PLASTICS
          GENERATION DATA ...
                                          QUANTITY (LBS)
                   10 YR. TOTAL
                                             5.00
                   DAILY RATE
                                             0.00
                   UNIT WEIGHT
                                             5.00
          RECLAMATION ACTION .. REPAIR
 ❖❖❖❖▸❖ WASTE ITEM NO. 4 .... FAILED DJGITAL DATA MODEM
          STATE ..... SOLID
          DENSITY ........ 72.00 LBS/CU. FT.
          ATTRIBUTES ..... METAL
          ELEMENTS PRESENT .. AL, CU, FE, SI
          CCMPOSITION ..... SEMI-COND.PLASTICS
          GENERATION DATA ...
                                          QUANTITY (LBS)
                   10 YR. TOTAL
                                             5.00
                   DAILY RATE
                                             0.00
                   UNIT WEIGHT
                                             5.00
          RECLAMATION ACTION .. REPAIR
```

S/C SUBSYSTEM INTRA-VEHICULAR COMMUNICATIONS GROUP KEY 2.4.3

***** WASTE ITEM NO. 5 PACKAGING FOR REPLACEMENT PARTS

STATE SCLID

DENSITY 5.00 LBS/CU. FT.

ATTRIBUTES PLASTIC

ELEMENTS PRESENT ..

COMPOSITION PLASTIC SPONGE AND SHEETING GENERATION DATA ... QUANTITY (LBS)

GENERATION DATA ... QUANTIT

DAILY RATE 0.00
UNIT WEIGHT 0.00

RECLAMATION ACTION .. REUSE AS 1S

PROVIDE STATION DATA COLLECTION AND STORAGE

S/C SUBSYSTEM DATA COLLECTION, STORAGE AND DISPLAY SROUP KEY 2.5.1

PASIC FUNCTION MAINTAIN S/C FUNCTION FUNCTIONAL REQUIREMENT PROVIDE FOR DATA MANAGEMENT

* E) LIPMENT/EXPERIMENT NO. 1 DATA MANAGEMENT-ELECTRONIC

S/C AREAS CCMPUTER

**** WASTE SOURCE NO. 1 DATA MANAGEMENT-ELECTRONIC

DOCUMENT VO. 2.5.1.1.1

REFERENCE NO. 1 .. MCDCNALD DOUGLAS SPACE STATION REPORT #1

DC GO634 PRELIMINARY SYSTEMS CESIGN D

ATA, VOLUME 1, BOOK 2, MSFC-DRL-160LINE

ITEM 13, JULY, 1970

REFERENCE NO. 2 .. FARADA, FAILURE RATE DATA HANDBOOK, VOLU ME 1A, RUREAU OF NAVAL WEAPONS, TR1-SERVI CE, NASA, SP-63-470

REFERENCE NO. 3 .. ATS PROGRAM FAIRCHILD HILLER CORP.

REFERENCE NO. 4 .. RELIABILITY REPORT, NOV. 1968, NATIONAL SEMICONDUCTOR CORPORATION, PAGE 14

REFERENCE NO. 5 .. RELIABILITY OF EPOXY TRANSISTORS, PRESEN TED AT 1969 ANNUAL SYMPOSIUM OF RELIAB ILITY BY GENERAL ELECTRIC, PAGE 17.

REFERENCE NO. 6 .. THE REQUIREMENT FOR MAINTAINABLE ELECTRO NICS ON LONG-DURATION MANNED SPACE MISS ION BY MR.M.L. JCHNSCN OF THE AEROS PACE SYSTEMS DIVISION. APRIL. 1969.

*** "* WASTE ITEM NO. 1 CONTROLS/ARITHMETIC MODULES BOOK MODULE

STATE SOLID, RIGID, SHEE DENSITY 50.00 LBS/CU. FT.

ATTRIBUTES PETAL, PLASTIC

ELFYENTS PRESENT .. AL, CU

COMPOSITION PHENCLIC, FIBERGLASS, SILICON GENERATION DATA ... QUANTITY (LBS)

10 YR. TOTAL 48.75
DAILY RATE 0.00
UNIT WEIGHT 2.50

```
S/C SUBSYSTEM .... DATA COLLECTION, STGRAGE AND DISPLAY
   GROUP, KEY .... 2.5.1
** EJUIPMENT/EXPERIMENT NO. 1 .....DATA MANAGEMENT-ELECTRONIC
**** WASTE SOURCE NO. 1 .... DATA MANAGEMENT-ELECTRONIC
**** WASTE ITEM NO. 2 .... MAIN MEMORY BOOK MODULE
         STATE ..... SOLID, RIGID, SHEE
         DENSITY ..... 50.00 LBS/CU. FT.
         ATTRIBUTES ..... METAL, PLASTIC
         ELEMENTS PRESENT .. AL CU
         COMPOSITION ..... PHENOLIC, FIBERGLASS, SILICON
         GENERATION DATA ...
                                         QUANTITY (LBS)
                  10 YR. TOTAL
                                           2.50
                  DAILY RATE
                                           0.00
                  UNIT WEIGHT
                                           2.50
         RECLAMATION ACTION .. REPAIR
**** WASTE ITEM NO. 3 ... MAGNETIC TAPE
         STATE ..... SOLID,
         DENSITY ..... 40.00 LBS/CU. FT.
         ATTRIBUTES ..... PLASTIC, WOUND RIBBON
         FLEMENTS PRESENT .. IRCN OXIDE
         COMPOSITION ..... MYLAR
         GENERATION DATA ...
                                         QUANTITY (LBS)
                  10 YR. TOTAL
                                           5.00
                  DAILY RATE
                                           0.00
                  UNIT WEIGHT
                                           5.00
         RECLAMATION ACTION .. REPLACE
**** WASTE ITEM NO. 4 .... MAGNETIC DISC
         STATE .... SOLID
         DENSITY ..... 40.00 LBS/CU. FT.
         ATTRIBUTES .... PLASTIC, METAL
         ELEMENTS PRESENT .. IRCN OXIDE, FE, CU
         COMPOSITION ..... TEFLON
         GENERATION DATA ...
                                         QUANTITY (LBS)
                  10 YR. TOTAL
                                           5.00
                  DAILY RATE
                                           0.00
                  UNIT WEIGHT
                                           5.00
        RECLAMATION ACTION .. REPLACE
```

S/C SUBSYSTEM DATA COLLECTION, STOWAGE AND DISPLAY GROUP KEY 2.5.1 ** EJUIPMENT/EXPERIMENT NO. 1DATA MANAGEMENT-ELECTRONIC **** WASTE SOURCE NO. 1 DATA MANAGEMENT-ELECTRONIC ***** WASTE ITEM NO. 5 TAPE TRANSPORTS STATE SOLID DENSITY 42.00 LBS/CU. FT. ATTRIBUTES METAL, DENSE ELEMENTS PRESENT .. FE,CU CGMPOSITION QUANTITY (LBS) GENERATION DATA ... 101.60 10 YR. TOTAL 0.00 DAILY RATE 40.00 UNIT WEIGHT RECLAMATION ACTION .. REPLACE **** WASTE ITEM NO. 6 CIRCUIT BOARD STATE SCLID, RIGID, SHEE DENSITY 50.00 LBS/CU. FT. ATTRIBUTES PLASTIC, METAL ELEMENTS PRESENT .. AL, CU COMPOSITION PHENOLIC, FIBERGLASS, SILICON QUANTITY (LBS) GENERATION DATA ... 9.00 10 YR. TOTAL DAILY RATE 0.00 0.25 UNIT WEIGHT PECLAMATION ACTION .. REPAIR **** WASTE ITEM NO. 7 SENSOR STATE SCLID DENSITY 50.00 LBS/CU. FT. ATTRIBUTES METAL ELEMENTS PRESENT .. UNKNOWN COMPOSITION UNKNOWN

GENERATION DATA ...

10 YR. TOTAL

DAILY RATE

UNIT WEIGHT RECLAMATION ACTION .. REPLACE

QUANTITY (LBS)

52.50

0.00

0.25

ELEMENTS PRESENT .. AL, CU

GENERATION DATA ...

COMPOSITION PHENOLIC, SILICON

10 YR. TOTAL

DAILY RATE

UNIT WEIGHT

RECLAMATION ACTION .. REPAIR

QUANTITY (LBS)

6.75

0.00

6.75

```
S/C SUBSYSTEM .... DATA COLLECTION, STORAGE AND DISPLAY
      GROUP KEY .... 2.5.1
  ** EQUIPMENT/EXPERIMENT NO. 1 .....DATA MANAGEMENT-ELECTRONIC
  **** WASTE SOURCE NO. 1 ... DATA MANAGEMENT-ELECTRONIC
  ***** WASTE ITEM NO. 8 .... CATHODE RAY TUBE
           STATE ..... SCLID
           DENSITY ..... 2.00 LBS/CU. FT.
           ATTRIBUTES ..... GLASS, FRAGILE, DANGEROUS
           ELFMENTS PRESENT .. SIO2, FE
           CCMPOSITION .....
           GENERATION DATA ...
                                          QUANTITY (LBS)
                    10 YR. TOTAL
                                            17.50
                    DAILY RATE
                                             0.00
                    UNIT WEIGHT
                                             2.00
           RECLAMATION ACTION .. REPLACE
***** WASTE ITEM NO. 9 .... KEYBOARD TERMINAL
           STATE ..... SOLID
           DENSITY ..... 40.00 LBS/CU. FT. ATTRIBUTES ..... PLASTIC, SEMI-COND, RIGID
```

S/C SUBSYSTEM DATA COLLECTION, STORAGE AND DISPLAY 3ROUP KEY 2.5.1

** EQUIPMENT/EXPERIMENT NO. 2 DATA MANAGEMENT-PHOTOGRAP IC

S/C AREAS PHCTOGRAPHIC SUPPORT

**** WASTE SOURCE NO. 1 DATA MANAGEMENT - PHCTOGRAPHIC

DOCUMENT NO. 2.5.1.2.1

REFERENCE NO. 1 .. MEES C.E.K. THE THEORY OF THE PHOTOGRAPH IC PROCESS- THE MACMILLAN CCMPANY 195 9, ROCHESTER, N.Y.

REFERENCE NO. 2 .. GUNDERSEN, ROBT. T. FARTH-ORBITING SPACE
-BASE CREW SKILLS ASSESSMENT. NASA, M.S.
C, HOUSTON, TEXAS. NASA TM X-1982. APRIL
1570

***** WASTE ITEM NO. 1 EXHAUSTED DEVELOPING CHEMICALS

STATE LIQUID

DENSITY 63.00 LBS/CU. FT.

ATTRIBUTES CAUSTIC

ELEMENTS PRESENT .. SODIUM THIOSULFATE

COMPOSITION

GENERATION DATA ... QUANTITY (LBS)

 10 YR. TOTAL
 25550.00

 DAILY RATE
 7.00

 UNJT WEIGHT
 14.00

RECLAMATION ACTION ...

**** WASTE ITEM NO. 2 EMPTY FILM CARTRIDGES

STATE SOLID

DENSITY 1C.00 LBS/CU. FT.

ATTRIBUTES METAL

ELEMENTS PRESENT ..

COMPOSITION STEEL

GENERATION DATA ... QUANTITY (LBS)

10 YR. TOTAL 25550.00 DAILY RATE 7.00 UNIT WEIGHT 0.70

RECLAMATION ACTION .. REFILL WITH FILM

S/C SURSYSTEM DATA COLLECTION, STORAGE AND DISPLAY GROUP KEY 2.5.1

** EQUIPMENT/FXPERIMENT NO. 2DATA MANAGEMENT-PHOTOGRAP IC **** WASTE SOURCE NO. 1 CATA MANAGEMENT - PHOTOGRAPHIC *****************************

***** WASTE ITEM NO. 3 DISCARDED PICTURES STATE SOLID DENSITY 25.00 LBS/CU. FT. ATTRIBUTES PLASTIC, CAUSTIC

ELFMENTS PRESENT ..

CCMPDSITION SILVER HALIDE, MYLAR, GELATINE GENERATION DATA ... QUANTITY (LBS)

10 YR. TOTAL 2550.00 DAILY RATE 0.70 UNIT WEIGHT 0.00

RECLAMATION ACTION .. CLEAN,

***** WASTE ITEM NO. 4 EDITING FILM SCRAPS

STATE SOLID

DENSITY 10.00 LBS/CU. FT. ATTRIBUTES PLASTIC, CAUSTIC

ELEMENTS PRESENT ..

COMPOSITION SILVER HALIDE GRAINS IN GELITIN ON MYLAR

GENERATION DATA ... QUANTITY (LBS)

10 YR. TOTAL 2550.00
DAILY RATE 0.70
UNIT WEIGHT 0.00
RECLAMATION ACTION .. CLEAN, FRESH EMULSION

S/C SUBSYSTEM ASTRONOMY AND ASTROPHYSICS GROUP KEY 3.1.1

BASIC FUNCTION PERFORM MISSION TASKS
FUNCTIONAL REQUIREMENT ASTRONOMY, ASTROPHYSICS & CELESTI
AL MECHANICS STUDIES & TASKS

PHYSICS AND CHEMISTRY STUDIES/TASKS

S/C SUBSYSTEM PHYSICS SROUP KEY 3.2.1

BASIC FUNCTION PERFORM MISSION TASKS FUNCTIONAL REQUIREMENT PHYSICS AND CHEMISTRY STUDIES AND D TASKS

** EJUIPMENT/EXPERIMENT NO. 1 PLASMA PHYSICS

ASSCCIATED FPE NUMBER ... 5.7
S/C AREAS LABORATORY
REMOTE SATELLITE

**** WASTE SOURCE NO. 1 PLASMA WAKE EXPERIMENTS

DOCUMENT NO. 3.2.1.1.1

REFERENCE NO. 1 .. SAMIR, V. SPACECRAFT/SPACE PLASMA INTERA CTION, SPACEFLIGHT VCL. 10 NO. 8 .

REFERENCE NO. 2 .. SINGER, S.F. (EDITOR) INTERACTION OF SPA CE VEHICLES WITH AN IONIZED ATMOSPHERE, PERGAMON PRESS, 1965.

***** WASTE ITEM NO. 1 CANISTER AND PACKING

STATE SOLID

DENSITY 5C.00 LBS/CU. FT.

ATTRIBUTES RIGID, TUBE

ELEMENTS PRESENT ..

COMPOSITION PLASTIC

GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 30.00
DAILY RATE 0.00

BATCH SIZE 10.00

RECLAMATION ACTION .. USE AS IS

***** WASTE ITEM AO. 2 INFLATABLE SPHERE

STATE SCLID

DENSITY 35.00 LBS/CU. FT.

ATTRIBUTES PLASTIC, SHEET

FLEMENTS PRESENT ...

CCMPOSITION MYLAR

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 90.00
DAILY RATE 0.00
BATCH SIZE 45.00

RECLAMATION ACTION .. RECAPTURE & REPAIR

```
S/C SUBSYSTEM .... PHYSICS
    GROUP KEY .... 3.2.1
** EDUIPMENT/EXPERIMENT NO. 1 .....PLASMA PHYSICS **** WASTE SOURCE NO. 1 .... PLASMA WAKE EXPERIMENTS
***** WASTE ITE4 NC. 3 .... INFLATABLE CYLINDER
         STATE ..... SOLID
         DENSITY ...... 35.00 LBS/CU. FT.
         ATTRIBUTES ..... PLASTIC, SHEET
         ELEMENTS PRESENT ..
         COMPOSITION ..... MYLAR
         GENERATION DATA ...
                                          QUANTITY (LPS)
                   EXPT. TOTAL
                                            57.00
                   DAILY RATE
                                             0.00
                   BATCH SIZE
                                            57.00
         RECLAMATION ACTION .. RECAPTURE & REPAIR
**** WASTE ITEM NO. 4 .... LANGMUIR PROBE, DAMAGED
         STATE ..... SOLID
         DENSITY ..... 30C.00 LBS/CU. FT.
         ATTRIBUTES ..... METAL, PLASTIC, ROD
         ELEMENTS PRESENT .. FE
         COMPOSITION .... TEFLON
         GENERATION DATA ...
                                          QUANTITY (LBS)
                   EXPT. TOTAL
                                             0.10
                   DAILY RATE
                                             0.00
                   BATCH SIZE
                                             0.10
         RECLAMATION ACTION .. REPAIR
***** WASTE ITEM NO. 5 .... MAGNETIC TAPE
         STATE ...... SOLID
         DENSITY ..... 7C.00 LBS/CU. FT.
         ATTRIBUTES ..... PLASTIC RIBBON ON SPCOL
         ELEMENTS PRESENT .. FE
         COMPOSITION ..... MYLAR
         GENERATION DATA ...
                                          QUANTITY (LBS)
                   EXPT. TOTAL
                                             2.50
                   DAILY RATE
                                             0.00
                   BATCH SIZE
                                             2.50
         RECLAMATION ACTION .. ERASE, SPLICE
```

```
S/C SUBSYSTEM .... PHYSICS
   GROUP KEY .... 3.2.1
** EQUIPMENT/EXPERIMENT NO. 1 .....PLASMA PHYSICS
**** WASTE SOURCE NO. 1 .... PLASMA WAKE EXPERIMENTS
***** WASTE ITEM NO. 6 ... POLARCID PICTURES
         STATE ..... SOLID
         DENSITY ..... 58.00 LBS/CU. FT.
         ATTRIBUTES ..... PAPER, CHEMICALS, SHEET
         ELEMENTS PRESENT .. SILVER
         COMPOSITION ..... CELLULOSE
         GENERATION DATA ...
                                        QUANTITY (LBS)
                 EXPT. TOTAL
                                          08.0
                 DAILY RATE
                                          0.02
                 BATCH SIZE
                                          10.0
         RECLAMATION ACTION .. NONE
***** WASTE ITEM NO. 7 .... POLAROID FILM SCRAP
         STATE ..... SOLID
         DENSITY ..... 3C.00 LBS/CU. FT.
         ATTRIBUTES ..... PAPER, SHEET, CHEMICALS
         ELEMENTS PRESENT ..
         CCMPOSITION ..... CELLULOSE, DEVELOPER
         GENERATION DATA ...
                                        QUANTITY (LBS)
                 EXPT. TOTAL
                                          7.20
                 DAILY RATE
                                          0.18
                 BAICH SIZE
                                          0.07
         RECLAMATION ACTION .. NONE
***** WASTE ITEM NO. 8 ... PLGTTING PAPER
       STATE ..... SOLID
         DENSITY ..... 35.00 LBS/CU. FT.
         ATTRIBUTES ..... SHEET
         ELEMENTS PRESENT ..
         COMPOSITION ..... PAPER
         GENERATION DATA ...
                                        QUANTITY (LBS)
                 EXPT. TOTAL
                                          5.00
                 DAILY RATE
                                          0.13
                 BATCH SIZE
                                          0.00
```

RECLAMATION ACTION .. NONE

S/C SUBSYSTEM PHYSICS 3ROUP KEY 3.2.1

** EQUIPMENT/EXPERIVENT NO. 1PLASMA PHYSICS **** WASTE SOURCE NO. 1 ... PLASMA WAKE EXPERIMENTS

*** ** WASTE ITEM NO. 9 PROPELLANT

STATE GAS

DENSITY 65.00 LBS/CU. FT. ATTRIBUTES TOXIC, CORROSIVE, UNSTABLE

ELEMENTS PRESENT ..

COMPOSITION N2F4

QUANTITY (LBS) GENERATION DATA ...
EXPT. TOTAL

22.00 0.50 DAILY RATE 22.00 BATCH SIZE

RECLAMATION ACTION .. NGNE

S/C SUBSYSTEM PHYSICS GROUP KEY 3.2.1

** EQUIPMENT/EXPERIMENT NO. 1PLASMA PHYSICS

**** WASTE SOURCE NO. 2 CYCLOTRON HARMONIC WAVE TRANSMISSION EXP ERIMENT

DOCUMENT NO. 3.2.1.1.2

**** WASTE ITEM NO. 1 ... MAGNETIC TAPE

STATE SOLID

DENSITY 70.00 LBS/CU. FT.

ATTRIBUTES PLASTIC RIBBUN ON SPOOL

ELEMENTS PRESENT .. FE

CCMPOSITION MYLAR

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 7.50
DAILY RATE 0.00
BATCH SIZE 2.50

RECLAMATION ACTION .. ERASE, SPLICE

S/C SUBSYSTEM PHYSICS SROUP KEY 3.2.1

** EQUIPMENT/EXPERIMENT NO. 2 COSMIC RAY PHYSICS

ASSCCIATED FPE NUMBER ... 5.8
S/C AREAS WORK AREA AIRLOCK
ATTACHED MODULE

*** WASTE SOURCE NO. 1 INTFRACTION PHYSICS EXPERIMENTS (BAY 1)

DOCLMENT NO. 3.2.1.2.1

*~ * * * WASTE ITEM NO. 1 CRYCGENIC LIQUID

STATE LIGUID

DENSITY 8.00 LBS/CU. FT.

ATTRIBUTES CCLD

ELEMENTS PRESENT .. HELIUM, NITROGEN

CCMPOSITION

GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 100.00

EXPT. TOTAL 100.00

DAILY RATE 0.00

BATCH SIZE 100.00

RECLAMATION ACTION .. RECYCLED

**** WASTE ITEM NO. 2 CRYOGENIC LIQUID PACKAGING

STATE SOLID

DENSITY C.40 LBS/CU. FT.

ATTRIBUTES CYLINDER

ELEMENTS PRESENT ..

COMPOSITION METAL, VACUUM

-- GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 5.00 DAILY RATE 0.00 BATCH SIZE 5.00

RECLAMATION ACTION ...

****** WASTE ITEM NO. 3 LIQUID HYDROGEN

STATE LIQUID

DENSITY 8.00 LBS/CU. FT. ATTRIBUTES COLD, DANGERCUS

ELFMENTS PRESENT .. HYDROGEN, NITROGEN

COMPOSITION

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 500.00 DAILY RATE 0.00 BATCH SIZE 500.00

RECLAMATION ACTION .. RECYCLED

S/C SUBSYSTEM PHYSICS GROUP KEY 3.2.1

** FQUIPMENT/EXPERIMENT NO. 2COSMIC RA/ PHYSICS **** WASTE SOURCE NO. 1 INTERACTION PHYSICS EXPERIMENTS (BAY 1)

****** WASTE ITEM NO. 4 ... LIQUID HYDROGEN PACKAGING STATE SOLID

DENSITY 0.20 LBS/CU. FT.

ATTRIBUTES CYLINDER

ELEMENTS PRESENT ..

CCMPOSITION METAL VACUUM

CENERATION DATA ... QUANTITY (LBS) EXPT. TOTAL 25.00

DAILY RATE 0.00 BATCH SIZE 25.00

RECLAMATION ACTION ..

 **** ** WASTE ITEM NO. 5 EMULSION PLATES STATE LIQUID , SOLID

DENSITY 4C.00 LBS/CU. FT.

ATTRIBUTES ELEMENTS PRESENT .. COMPOSITION

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 75.00 DAILY RATE 0.00 BATCH SIZE 75.00

RECLAMATION ACTION ..

*** XXX WASTE ITEM NO. 6 ... EMULSION PLATES PACKAGING

STATE SCLID

DENSITY 25.00 LBS/CU. FT.

ATTRIBUTES RACIATION TIGHT

ELEMENTS PRESENT .. LEAD

COMPOSITION

EXPT. TOTAL
DAILY RATE GENERATION DATA ... QUANTITY (LBS) 4.00

0.00 BATCH SIZE 4.00

RECLAMATION ACTION ...

```
S/C SUBSYSTEM .... PHYSICS
    3ROUP KEY .... 3.2.1
** EQUIPMENT/EXPERIMENT NO. 2 ......COSMIC RAY PHYSICS
**** WASTE SOURCE NO. 1 .... INTERACTION PHYSICS EXPERIMENTS (BAY 1)
***** WASTE ITEM AD. 7 ... MAGNETIC TAPES
         STATE ..... SCLID
         DENSITY ..... 7C.00 LBS/CU. FT.
         ATTRIBUTES ..... PLASTIC, RIBBON ON SPOOL
         ELEMENTS PRESENT .. FE
         COMPOSITION ..... MYLAR
         GENERATION DATA ...
                                        QUANTITY (LBS)
                  EXPT. TOTAL
                                           5.00
                  DAILY RATE
                                           0.00
                  BATCH SIZE
                                           2.50
         RECLAMATION ACTION .. ERASE, SPLICE
***** WASTE ITEM NO. 8 ... ELECTRONIC MODULE
         STATE ..... SCLID
         DENSITY ...... 25.00 LBS/CU. FT.
         ATTRIBUTES ..... CUBIC, SEMICONDUCTOR, METAL
         ELFMENTS PRESENT ..
         CCMPOSITION ..... METAL, PLASTIC
         GENERATION DATA ...
                                        QUANTITY (LBS)
                  EXPT. TOTAL
                                          50.00
                  DAILY RATE
                                           0.00
                  BATCH SIZE
                                          50.00
         RECLAMATION ACTION .. REPAIR
***** WASTE ITEM NO. 9 .... POLARGID FILM
         STATE ..... SOLID
         DENSITY ..... 58.00 LBS/CU. FT.
         ATTRIBUTES ..... PAPER, CHEMICAL, SHEET
         FLEMENTS PRESENT .. SILVER
         CCMPOSITION ..... CELLULOSE
         GENERATION DATA ...
                                         QUANTITY (LBS)
                  EXPT. TOTAL
                                           0.50
                  DAILY RATE
                                           0.00
                  BATCH SIZE
                                           0.01
         RECLAMATION ACTION .. NONE
```

```
S/C SUBSYSTEM .... PHYSICS
   GROUP KEY .... 3.2.1
** EQUIPMENT/EXPERIMENT NO. 2 ......COSMIC RAY PHYSICS
**** WASTE SOURCE NO. 1 .... INTERACTION PHYSICS EXPERIMENTS (BAY 1)
***** WASTE ITEM NO. 10 .... POLAROID FILM SCRAP
         STATE ..... SOLID
         DENSITY ..... 30.00 LBS/CU. FT.
         ATTRIBUTES ..... PAPER, CHEMICAL, SHEET
         ELFMENTS PRESENT ..
         CCMPOSITION ..... CELLULOSE, SILVER DEVELOPER
         GENERATION DATA ...
                                        QUANTITY (LBS)
                  EXPT. TOTAL
                                           4.50
                  DAILY RATE
                                           0.00
                  BATCH SIZE
                                           0.08
         RECLAMATION ACTION .. NONE
**** (* WASTE ITEM NO. 11 .... DATA PAPER
         STATE ..... SOLID
         DENSITY ..... 58.00 LBS/CU. FT.
         ATTRIBUTES ..... PAPER, SHEET
         ELEMENTS PRESENT ..
         COMPOSITION ..... CELLULOSE
         GENERATION DATA ...
                                        QUANTITY (LBS)
                  EXPT. TOTAL
                                           2.50
                  DAILY RATE
                                           0.00
                  BATCH SIZE
                                           2.50
         RECLAMATION ACTION .. NONE
***** WASTE ITEM NO. 12 .... REPLACEMENT MICROFILM
        -STATE ..... SOLID
         DENSITY ..... 5C.00 LBS/CU. FT.
         ATTRIBUTES ..... SOLID, CELLULOSE, CHEMICAL, SHEFT
         ELEMENTS PRESENT ..
         COMPOSITION .....
         GENERATION DATA ...
                                        QUANTITY (LBS)
                  EXPT. TOTAL
                                           5.00
                  DAILY RATE
                                           0.00
                  BATCH SIZE
                                           5.00
         RECLAMATION ACTION ..
```

```
S/C SUBSYSTEM .... PHYSICS
   GROUP KEY .... 3.2.1
** EQUIPMENT/EXPERIMENT NO. 2 .....COSMIC RAY PHYSICS
*** WASTE SOURCE NO. 2 .... HICH ENERGY PRIMARY COSMIC RAY EXPERIMEN
                           T (BAYS 2 AND 3)
         CCCUMENT NO. ..... 3.2.1.2.2
**** WASTE ITEM NO. 1 .... SPARK CHAMBER GASES
         STATE ..... GASEOUS
         DENSITY ..... C.OO LBS/CU. FT.
         ATTRIBUTES ..... STCRED
         ELEPENTS PRESENT .. NECN, HFLIUM
         CCMPOSITION .....
         GENERATION DATA ...
                                        QUANTITY (LBS)
                  EXPT. TOTAL
                                           0.00
                  DAILY RATE
                                           0.00
                                           0.00
                  BATCH SIZE
         RECLAMATION ACTION .. RECOMPRESS
**** ** WASTE ITEM NO. 2 .... PRESSURIZED CONTAINER
         STATE ..... SOLID
         DENSITY ..... 5C.00 LBS/CU. FT.
         ATTRIBUTES ..... METAL, CYLINDER
         ELEMENTS PRESENT .. FE
         CCMPOSITION .....
         GENERATION DATA ...
                                        QUANTITY (LBS)
                  EXPT. TOTAL
                                         250.00
                  DAILY RATE
                                          0.00
                                          50.00
                  BATCH SIZE
         RECLAMATION ACTION .. REFILLED
**** WASTE ITEM NO. 3 .... ELECTRONIC MODULE
         STATE ..... SCLID
         DENSITY ..... 25.00 LBS/CU. FT.
         ATTRIBUTES ..... CUBIC, SEMICONDUCTORS, METAL
         ELEMENTS PRESENT ..
         CCMPOSITION ..... METAL, PLASTIC
         GENERATION DATA ...
                                        QUANTITY (LBS)
                  EXPT. TOTAL
                                          50.00
                  DAILY RATE
                                          0.00
```

50.00

BATCH SIZE

RECLAMATION ACTION .. REPAIR

S/C SUBSYSTEM PHYSICS GROUP KEY 3.2.1

** EQUIPMENT/EXPERIMENT NO. 2COSMIC RAY PHYSICS

**** WASTE SOURCE NO. 2 HIGH ELERGY PRIMARY COSMIC RAY EXPERIMEN

T (BAYS 2 AND 3)

***** WASTE ITEM NO. 4 ... MAGNETIC TAPE

STATE SOLID

DENSITY 70.00 LBS/CU. FT.

ATTRIBUTES PLASTIC RIBBON ON SPOOL

ELEMENTS PRESENT .. FE

COMPOSITION MYLAR
GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 5.00
DAILY RATE 0.00
BATCH SIZE 2.50

RECLAMATION ACTION .. ERASE, SPLICE

**** WASTE ITEM NO. 5 POLAROID FILM

STATE SOLID

DENSITY 5.80 LBS/CU. FT.

ATTRIBUTES PAPER, CHEMICAL, SHEETS

ELEMENTS PRESENT .. SILVER

COMPOSITION CELLULOSE

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.50
DAILY RATE 0.00
BATCH SIZE 0.00

RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 6 FILM SCRAP

STATE SOLID

DENSITY 30.00 LBS/CU. FT.

ATTRIBUTES PAPER, CHEMICAL SHEET

ELEMENTS PRESENT ..

COMPOSITION CELLULOSE, SILVER DEVELOPER

GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 4.50

DAILY RATE 0.00
BATCH SIZE 0.00

S/C SUBSYSTEM PHYSICS GROUP KEY 3.2.1

** EQUIPMENT/EXPERIMENT NO. 2COSMIC RAY PHYSICS

**** WASTE SOURCE NO. 2 HIGH ENERGY PRIMARY COSMIC RAY EXPERIMENT (BAYS 2 AND 3)

***** WASTE ITEM NO. 7 DATA PAPER

STATE SOLID

DENSITY 58.00 LBS/CU. FT.

ATTRIBUTES PAPER, SHEET

ELEMENTS PRESENT ...

COMPOSITION CELLULOSE

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 2.50
DAILY RATE 0.00
BATCH SIZE 2.50

```
S/C SUBSYSTEM .... CHEMISTRY
   GRCUP KEY .... 3.2.2
BASIC FUNCTION ..... PERFORM MISSION TASKS
         FUNCTIONAL REQUIREMENT .... PHYSICS AND CHEMISTRY STUDIES AN
                                   D TASKS
** EQUIPMENT/EXPERIMENT NO. 1 ..... UNIT SEPARATION PROCESSES IN SPA
                                   CF
         ASSOCIATED FPE NUMBER ...
         S/C AREAS ..... LABCRATORY
**** WASTE SOURCE NO. 1 .... UNIT SEPARATION PROCESSES IN SPACE
         DOCUMENT NO. ..... 3.2.2.1.1*
         REFERENCE NO. 1 .. SPACE PROCESSING AND MANUFACTURING NASA
                           GECRGE C. MARSHALL SPACE FLIGHT CENTER -
                            OCT. 21,1969-ME-69-1
         REFERENCE NO. 2 .. APPROVED LABORATORY TECHNIQUE-5TH EDITIO
                           N 1951, KCLMER J.A., SPAULDING E.H., AND
                           ROBINSON H.W., APPLETON-CENTURY-CROFTS I
                           NC .
****** WASTE ITEM NO. 1 .... MICROORGANISM+DISTILLED WATER+TUBE
         STATE ..... SOLID
         DENSITY ......
                             8.64 LBS/CU. FT.
         ATTRIBUTES .... ORGANIC
         ELFMENTS PRESENT ...
         COMPOSITION .... BOROSILICATES
         GENERATION DATA ...
                                         QUANTITY (LBS)
                  EXPT. TOTAL
                                            1.04
                  DAILY RATE
                                            0.00
                  BATCH SIZE
                                            0.02
         RECLAMATION ACTION .. N/R
***** WASTE ITEM NO. 2 ... MEDIA IN TUBES
         STATE ..... SOLID
         DENSITY ..... 86.40 LBS/CU. FT.
         ATTRIBUTES ..... GEL + PLASTIC CONTAMINATED
         ELEMENTS PRESENT ...
         COMPOSITION ..... GEL + POLYSTYRENE
         GENERATION DATA ...
                                         QUANTITY (LBS)
                  EXPT. TOTAL
                                            6.24
                  DAILY RATE
                                            0.00
                  BATCH SIZE
                                            0.12
```

S/C SUBSYSTEM CHEMISTRY GROUP KEY 3.2.2

** EQUIPMENT/EXPERIMENT NO. 1UNIT SEPARATION PROCESSES IN SPA

*** * WASTE SOURCE NO. 1 UNIT SEPARATION PROCESSES IN SPACE

***** WASTE ITEM NO. 3 SALINE IN TUBES -

STATE SGLID

DENSITY 86.40 LBS/CU. FT.

ATTRIBUTES SALINE + PLASTIC CONTAMINATED

ELEMENTS PRESENT ..

COMPOSITION SALINE + POLYSTYRENE

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 8.32
DAILY RATE 0.00
BATCH SIZE 0.16

RECLAMATION ACTION .. N/R

**** ** WASTE ITEM NO. 4 SYRINGES

STATE SOLID

DENSITY 35.60 LBS/CU. FT.

ATTRIBUTES PLASTIC CCNTAMINATED

ELEMENTS PRESENT ..

COMPOSITION POLYSTYRENE -

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 2.35
DAILY RATE 0.00
BATCH SIZE 0.03

RECLAMATION ACTION .. N/R

**** WASTE ITEM NO. 5 INNOCULATING NEEDLES

STATE SOLID

DENSITY 1.70 LBS/CU. FT.

ATTRIBUTES PLASTIC CONTAMINATED

ELEMENTS PRESENT ...

COMPOSITION POLYSTYRENE

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.52
DAILY RATE 0.00
3ATCH SIZE 0.01

S/C SUBSYSTEM CHEMISTRY GROUP KEY 3.2.2

** FJUIPMENT/FXPERIMENT NO. 1UNIT SEPARATION PROCESSES IN SPA

**** WASTE ITEM NO. 6 POTASSIUM PHOSPHATE BUFFER CONTAINER

STATE SOLID

DENSITY 8.00 LBS/CU. FT. ATTRIBUTES PLASTIC CONTAMINATED

ELEMENTS PRESENT ..

COMPOSITION POLYSTYRENE

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 2.40
DAILY RATE 0.00
BATCH SIZE 0.02

RECLAMATION ACTION ... N/R

**** WASTE ITEM NO. 7 PACKAGING MATERIAL

STATE SOLID

DENSITY 0.08 LBS/CU. FT.

ATTRIBUTES PLASTIC + PAPEP CONTAMINATED

ELEMENTS PRESENT ..

COMPOSITION CELLULOSE + POLYETHELENE

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 1.04
DAILY RATE 0.00
BATCH SIZE 0.02

RECLAMATION ACTION .. REUSE AS IS

S/C SUBSYSTEM CHEMISTRY GROUP KEY 3.2.2

** EQUIPMENT/EXPERIMENT NO. 2 INDUSTRIAL MICROBIOLOGICAL APPLI CATIONS IN OG

ASSOCIATED FPE NUMBER ...
S/C AREAS LABORATORY

**** WASTE SOURCE NO. 1 A VACCINE SATELLITE PROGRAM

DOCUMENT NO. 3.2.2.2.1

REFERENCE NO. 1 .. SPACE PROCESSING AND MANUFACTURING, OCTO BER 21,1969, ME 69-1, NASA. GEORGE C. MA RSHALL SPACE FLIGHT CENTER. AGRICULTURE AND ANIMAL HOUSING STUDIES/TASKS

S/C SURSYSTEM PLANT CROPS

GROUP KEY 3.3.1

BASIC FUNCTION PERFORM MISSION TASKS **FUNCTIONAL REQUIREMENT AGRICULTURE AND ANIMAL HUSBANDRY**

** EJUIPMENT/EXPERIMENT NO. 1 RAPID LETTUCE GROWTH

ASSOCIATED FPE NUMBER ...

S/C AREAS AGRICULTURAL STUDY AREA REMOTE DCCKABLE MODULE

**** WASTE SOURCE NO. 1 RAPID LETTUCE GROWTH

DOCUMENT NO. 3.3.1.1.1

REFERENCE NO. 1 .. RAC TRIP REPORT 634.699.50X10, PLANT AND ANIMAL STUDIES

REMARKS (1) 25- 40 DAYS PER CROP

**** WASTE ITEM NO. 1 PLANT RESIDUE

STATE ORGANIC MATTER

DENSITY 22.00 LBS/CU. FT.

ATTRIBUTES

ELEMENTS PRESENT ..

COMPOSITION CELLULOSE, PLANT PROTIEN, MINERALS

GENERATION DATA ... QUANTITY (LBS)

> EXPT. TOTAL DAILY RATE

1.00 0.04

BATCH SIZE

0.04

RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 2 CONTAINER

STATE

DENSITY 83.60 LBS/CU. FT.

ATTRIBUTES PLASTIC TRAY

ELEMENTS PRESENT ...

COMPOSITION COPOLYVINYL CHLORIDE ACETATE

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL DAILY RATE

4.00

0.00

BATCH SIZE

4.00

RECLAMATION ACTION .. CLEANSING

***** WASTE ITEM NO. 3 VERMICULITE

STATE SGLID

DENSITY 1C.00 LBS/CU. FT.

ATTRIBUTES

ELEMENTS PRESENT ...

COMPOSITION MINERALS

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 5.00
DAJLY RATE 0.00
BATCH SIZE 5.00

RECLAMATION ACTION .. SIFTING

** EQUIPMENT/EXPERIMENT NO. 2 NO WASTE FOOD RADISH/CABBAGE

ASSCCIATED FPE NUMBER ...
S/C AREAS

**** WASTE SOURCE NO. 1 NO WASTE FOOD RADISH/CABBAGE

DOCUMENT NO. 3.3.1.2.1

REFERENCE NO. 1 .. RAD TRIP REPORT 634.699.50X10, PLANT AND ANIMAL STUDIES

REMARKS (1) INDEFINATE GROWTH

***** WASTE ITEM NO. 1 CONTAINER

STATE

DENSITY 83.60 LBS/CU. FT.

ATTRIBUTES PLASTIC TRAY

ELEMENTS PRESENT ..

CGMPOSITION COPCLYVINYL CHLORIDE- ACETATE

GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 4.00

DAILY RATE 0.00
SATCH SIZE 4.00

RECLAMATION ACTION .. CLEANSING

**** WASTE ITEM NO. 2 VERMICULITE

STATE SCLID PARTICLES

DENSITY 10.00 LBS/CU. FT.

ATTRIBUTES

ELEMENTS PRESENT ..

COMPOSITION SIC2, MGO, AL203, FE203, K20, CA0, H20

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 4.00
DAILY RATE 0.00
BATCH SIZE 4.00

RECLAMATION ACTION .. CLEANSING

****** WASTE ITEM NO. 3 PLANT DEBRIS
STATE GRGANIC BITS

DENSITY 22.00 LBS/CU. FT.

ATTRIBUTES

ELEMENTS PRESENT .. C6 H10 05

COMPOSITION CELLULOSE TRACE MINERALS

GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 1.00

DAILY RATE 0.00
BATCH SIZE 0.02

RECLAMATION ACTION .. MULCH

```
S/C SUBSYSTEM .... PLANT CROPS
   GROUP KEY .... 3.3.1
** EQUIPMENT/EXPERIMENT NO. 3 ..... INCREASED CO2 ON FOOD PLANTS
         ASSCCIATED FPE NUMBER ...
         S/C AREAS .....
**** WASTE SOURCE NO. 1 .... INCREASED CO2 ON FOOD PLANTS
         DOCUMENT NO. ..... 3.3.1.3.1
         REFERENCE NO. 1 .. RAD TRIP REPORT 634.699.50X10,PLANT AND
                                ANIMAL STUDIES
         REMARKS ( 1) ..... INDEFINITE PERIOD
***** WASTE ITEM NO. 1 ... PLANT DEBRIS
         STATE ..... CRGANIC BITS
         DENSITY ..... 22.00 LBS/CU. FT.
         ATTRIBUTES .....
         ELEMENTS PRESENT .. CELLULOSE
         COMPOSITION ..... PLANT PROTIEN
                                         QUANTITY (LBS)
         GENERATION DATA ...
                  EXPT. TOTAL
                                           0.00
                  DAILY RATE
                                           0.00
                  BATCH SIZE
                                           0.00
         RECLAMATION ACTION .. PULCH
***** WASTE ITEM NO. 2 .... CONTAINERS
         STATE .....
         DENSITY ..... 83.60 LBS/CU. FT.
         ATTRIBUTES ..... PLASTIC TRAYS
         ELEMENTS PRESENT ..
         COMPOSITION ..... COPOLYVINYL CHLORIDE ACETATE
         GENERATION DATA ...
                                         QUANTITY (LBS)
                  EXPT. TOTAL DAILY RATE
                                           0.00
                                           0.00
```

0.00

BATCH SIZE

RECLAMATION ACTION .. CLEANSING

** EQUIPMENT/EXPERIMENT NO. 3INCREASED CO2 ON FOOD PLANTS
**** WASTE SOURCE NO. 1 INCREASED CO2 ON FOOD PLANTS

deducted to the tree to a section of the tree to the tree tree to the tree tree to the tre

***** WASTE ITEM NO. 3 VERMICULITE
STATE SOLID PARTICLES

DENSITY 10.00 LBS/CU. FT.

ATTRIBUTES ELEMENTS PRESENT ..

COMPOSITION MINERALS

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.00
DAILY RATE 0.00
BATCH SIZE 0.00

RECLAMATION ACTION .. SIFTING

***** WASTE ITEM NO. 4 CARBON DIOXIDE

STATE GAS

DENSITY 12.00 LBS/CU. FT.

ATTRIBUTES

ELEMENTS PRESENT .. CO2

COMPOSITION

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.00 DAILY RATE 0.00 BATCH SIZE 0.00

RECLAMATION ACTION .. SCRUBBER AND EXTRACTOR

S/C SUBSYSTEM ANIMAL CPOPS

GROUP KEY 3.3.2

BASIC FUNCTION PERFORM MISSION TASKS FUNCTIONAL REQUIREMENT AGRICULTURE AND ANIMAL HUSBANDRY

** EJUIPMENT/EXPERIMENT NO. 1 JAPANESE QUAIL (COLINUS)

ASSOCIATED FPE NUMBER ... S/C AREAS ANIMAL HOUSING

**** WASTE SOURCE NO. 1 JAPANESE QUAIL (COLINUS)

DOCUMENT NO. 3.3.2.1.1*

REFERENCE NO. 1 .. RAC TRIP REPORT 634.699.50 X 10, PLANT A ND ANIMAL STUDIES, USDA 27 APPIL 1970.

**** ** WASTE ITEM NO. 1 LITTER

STATE SOLID

DENSITY 43.00 LBS/CU. FT.

ATTRIBUTES

ELEMENTS PRESENT .. ORGANIC CHO

CCMPOSITION

QUANTITY (LBS) GENERATION DATA ...

EXPT. TOTAL 0.00 DAILY RATE 0.00 **SATCH SIZE** 0.00

RECLAMATION ACTION .. N/R

**** WASTE ITEM NO. 2 FOOD SCRAPS

STATE SOLID

DENSITY 95.00 LBS/CU. FT.

ATTRIBUTES

ELEMENTS PRESENT ..

CCMPOSITION ORGANIC

QUANTITY (LBS) GENERATION DATA ...

> EXPT. TOTAL 1.00 DATLY RATE 0.01 BATCH SIZE 0.01

S/C SUBSYSTEM ANIMAL CROPS GROUP, KEY 3.3.2 ** EQUIPMENT/EXPERIMENT NO. 1JAPANESE QUAIL (COLINUS) *** WASTE SOURCE NO. 1 JAPANESE QUAIL (COLINUS) ***** WASTE ITEM NO. 3 FECES STATE SEMI SOLID DENSITY C.OO LBS/CU. FT. ATTRIBUTES ELEMENTS PRESENT .. COMPOSITION NORMAL QUANTITY (LBS) GENERATION DATA ... 5.00 EXPT. TOTAL DAILY RATE 0.06 **SATCH SIZE** 0.06 RECLAMATION ACTION .. N/R **** WASTE ITEM NO. 4 URINE STATE LIQUID DENSITY 63.70 LBS/CU. FT. ATTRIBUTES ELEMENTS PRESENT .. COMPOSITION NORMAL QUANTITY (LBS) GENERATION DATA ... EXPT. TOTAL 12.00 DAILY RATE 0.15 BATCH SIZE 0.15 RECLAMATION ACTION .. N/R **** WASTE ITEM NO. 5 FOOD AND FEATHER DUST STATE SOLID, AEROSOL DENSITY 65.00 LBS/CU. FT. ATTRIBUTES ELEMENTS PRESENT .. CCMPOSITION VARIED GENERATION DATA ... QUANTITY (LBS) 0.50 EXPT. TOTAL DAILY RATE 0.01

0.01

BATCH SIZE

```
S/C SUBSYSTEM .... ANIMAL CROPS
    GROUP KEY .... 3.3.2
** E)UIPMENT/EXPERIMENT NO. 1 .....JAPANESE QUAIL (COLINUS)
***: WASTE SOURCE NO. 1 .... JAPANESE QUAIL (COLINUS)
***** WASTE ITEM NO. 6 ... FEATHERS
         STATE ..... SOLID
         DENSITY ..... 6.50 LBS/CU. FT.
         ATTRIBUTES ......
         ELEMENTS PRESENT ...
         CCMPOSITION ..... PRETEIN
         GENERATION DATA ...
                                       QUANTITY (LBS)
                 EXPT. TOTAL
                                          0.50
                 DAILY RATE
                                          0.01
                 SATCH SIZE
                                         0.01
        RECLAMATION ACTION .. N/R
**** WASTE ITEM NO. 7 .... AMPONIA
        STATE ..... GAS
        DENSITY ..... 0.04 LBS/CU. FT.
        ATTRIBUTES ......
        ELEMENTS PRESENT .. NH3
        COMPOSITION .....
        GENERATION DATA ...
                                       QUANTITY (LBS)
                 EXPT. TOTAL
                                          0.10
                 DATLY RATE
                                          0.00
                 BATCH SIZE
                                          0.00
        RECLAMATION .. ENTRAP
**** ** WASTE ITEM NO. 8 .... CARBON DIDXIDE
        STATE ..... GAS
        DENSITY ......
                          0.12 LBS/CU. FT.
        ATTRIBUTES .....
        ELEMENTS PRESENT .. CO2
        COMPOSITION .....
        GENERATION DATA ...
                                       QUANTITY (LBS)
                 EXPT. TOTAL
                                          0.25
                 DAILY RATE
                                          0.00
                 BATCH SIZE
                                          0.00
```

RECLAMATION ACTION .. SCRUBBER AND EXTRACTOR

** EQUIPMENT/EXPERIMENT NO. 1JAPANESE QUAIL (COLINUS)
**** WASTE SOURCE NO. 1JAPANESE QUAIL (CGLINUS)

* *** ** WASTE ITEM NO. 9 EGG SHELLS

STATE SOLID BITS

DENSITY 128.00 LBS/CU. FT.

ATTRIBUTES

ELEMENTS PRESENT .. CA,P,FE

COMPOSITION

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.70 DAILY RATE 0.00 BATCH SIZE 0.35

RECLAMATION ACTION .. GRIND-ADD TO FOOD

BIOLOGICAL SCIENCES AND BIOTECHNOLOGY STUDIES

S/C SUBSYSTEM MICRO BIOLOGY EXPERIMENT (BIO C) 9ROUP KEY 3.4.1

BASIC FUNCTION PERFORM MISSION TASKS

FUNCTIONAL REQUIREMENT BIOLOGICAL SCIENCES AND BIOTECHN

OLOGY STUDIES

** EJUIPMENT/EXPERIMENT NO. 1 THE ROLE OF GRAVITY IN GFNEPAL C ELLULAR FUNCTION

> ASSCCIATED FPE NUMBER ... 5.25 S/C AREAS BIG-LABORATORY

**** WASTE SOURCE NO. 1 GENERAL GROWTH BEHAVIOR AND REPRODUCTION

IN CELLS

DOCUMENT NO. 3.4.1.1.1

REFERENCE NO. 1 .. EXPERIMENT PROGRAM FOR EXTENDED EARTH OR BITAL MISSIGN, REVISION, SEPTEMBER 1968, NASA OMSF.

REFFRENCE ND. 2 .. BIOLOGY - 1960, ELLIOT, A.M., RAY, C., A PPELTGN-CENTURY-CROFTS INC.

***** WASTE ITEM NO. 1 CONTAINER

STATE SOLID

DENSITY 8.00 LBS/CU. FT.

ATTRIBUTES PLASTIC CONTAMINATED

ELEMENTS PRESENT ..

COMPOSITION POLYSTYRENE

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.60 DAILY RATE 0.00 BATCH SIZE 0.20

RECLAMATION ACTION .. WASH

**** WASTE ITEM NO. 2 ... GROWTH MEDIUM

STATE LIQUID

DENSITY 62.00 LBS/CU. FT.

ATTRIBUTES MIXTURE, CONTAMINATED, ORGANIC

ELEMENTS PRESENT .. HYDROGEN, OXYGEN

COMPOSITION

GENERATION DATA ... QUANTITY (LBS)

> EXPT. TOTAL 0.30 DAILY RATE 0.00 SATCH SIZE 0.10

```
S/C SUBSYSTEM .... MICRO BIOLOGY EXPERIMENT (BIO C)
   GROUP, KEY .... 3.4.1
** EQUIPMENT/EXPERIMENT NO. 1 .....THE ROLE OF GRAVITY IN GENERAL C
                                 ELLULAR FUNCTION
**** WASTE SOURCE NO. 1 .... GENERAL GROWTH BEHAVIOR AND PEPRODUCTION
                           IN CELLS
**** WASTE ITEM NO. 3 .... CONGO RED, YEAST, BOTTLE
         STATE ...... SOLID
         DENSITY ..... 52.24 LBS/CU. FT.
         ATTRIBUTES ..... GLASS, ORGANIC, CONTAMINATED
         ELEMENTS PRESENT ..
         COMPOSITION ..... BORDSTLICATES
                                        QUANTITY (LBS)
         GENERATION DATA ...
                  EXPT. TOTAL
                                          0.12
                  DAILY RATE
                                          0.00
                  BATCH SIZE
                                          0.04
         RECLAMATION ACTION .. N/R
***** WASTE ITEM NO. 4 .... ACETIC ACID, BCTTLE
         STATE ..... SOLID
         DENSITY ..... 52.27 LBS/(U. FT.
         ATTRIBUTES ..... GLASS, CONTAMINATED
         ELEMENTS PRESENT ..
         COMPOSITION ..... BOROSILICATES
                                        QUANTITY (LBS)
         GENERATION DATA ...
                  EXPT. TOTAL
                                          0.12
                                          0.00
                  DAILY RATE
                                          0.04
                  BATCH SIZE
        RECLAMATION ACTION .. WASH
***** WASTE ITEM NO. 5 ... STAIN, BOTTLE
         STATE ..... SOLID
         DENSITY ..... 52.27 LBS/CU. FT.
         ATTRIBUTES ..... GLASS, CONTAMINATED
         ELEMENTS PRESENT ..
         COMPOSITION ..... BOROSILICATES
         GENERATION DATA ...
                                        QUANTITY (LBS)
                  EXP1. TOTAL
                                           0.12
                  DAILY RATE
                                           0.00
                  BATCH SIZE
                                          0.04
         RECLAMATION ACTION .. WASH
```

```
S/C JUBSYSTEM .... MICRO BIOLOGY EXPERIMENT (BIO C)
   3ROUP KEY .... 3.4.1
** E QUIPMENT/EXPERIMENT NO. 1 .....THE ROLE OF GRAVITY IN GENERAL C
                                 ELLULAR FUNCTION
**** WASTE SOURCE NO. 1 .... GENERAL GROWTH BEHAVIOR AND REPRODUCTION
                            IN CELLS
**** WASTE ITEM NO. 6 ... PASTEUR PIPETTE
         STATE ..... SOLID
         DENSITY ...... 17.28 LBS/CU. FT.
         ATTRIBUTES ..... GLASS, CONTAMINATED
         ELEMENTS PRESENT ..
         COMPOSITION ..... BOROSILICATES
         GENERATION DATA ...
                                        QUANTITY (LBS)
                  EXPT. TOTAL
                                           0.90
                  DAILY RATE
                                           0.01
                  BATCH SIZE
                                           0.00
         RECLAMATION ACTION .. WASH
****** WASTE ITEM NO. 7 .... PIPETTE BULB
         STATE ..... SOLID
         DENSITY ..... 59.00 LBS/CU. FT.
         ATTRIBUTES ..... RUBBER, CONTAMINATED
         ELFMENTS PRESENT .. SILICONES
         COMPOSITION .....
         GENERATION DATA ...
                                         QUANTITY (LBS)
                  EXPT. TOTAL
                                           0.04
                  DAILY RATE
                                           0.00
                  BATCH SIZE
                                           0.00
         RECLAMATION ACTION .. REUSE AS IS
****** WASTE ITEM NO. 8 ... STYLES-MOORE CHAMBER
         STATE ..... SCLID
         DENSITY ..... 8.64 LBS/CU. FT.
         ATTRIBUTES ..... GLASS, CONTAMINATED
         ELEMENTS PRESENT ..
         COMPOSITION ..... BOROSILICATES
                                         QUANTITY (LBS)
         GENERATION DATA ...
                  EXPT. TOTAL
                                           1.80
                  DAILY RATE
                                           0.02
                                           0.00
                  BATCH SIZE
         RECLANATION ACTION .. WASH
```

S/C SURSYSTEM MICRO BIOLOGY EXPERIMENT (BIO C) GROUP/KEY 3.4.1 ** EQUIPMENT/EXPERIMENT NO. 1THE ROLE OF GRAVITY IN GENEPAL C ELLULAR FUNCTION **** WASTE SOURCE NO. 1 GENERAL GROWTH BEHAVIOR AND REPRODUCTION IN CELLS **** WASTE ITEM NO. 9 LIGHT BULB STATE SOLID

DENSITY 13.82 LBS/CU. FT. ATTRIBUTES GLASS, DEFECTIVE ELEMENTS PRESENT .. COMPOSITION BOROSILICATES

> GENERATION DATA ... QUANTITY (LBS) EXPT. TOTAL 0.03 DAILY RATE 0.00 BATCH SIZE 0.03

RECLAMATION ACTION .. N/R

**** WASTE ITEM NO. 10 PACKAGING MATERIAL STATE SOLID

DENSITY C.08 LBS/CU. FT.

ATTRIBUTES PAPER, PLASTIC, CONTAMINATED

ELEMENTS PRESENT ..

COMPOSITION CELLULOSE, POLYETHYLENE

GENERATION DATA ... QUANTITY (LBS) EXPT. TOTAL 0.75

DAILY RATE 0.00 BATCH SIZE 0.25

RECLAMATION ACTION .. REUSE AS IS

***** WASTE ITEM NO. 11 CARBON DIOXIDE

STATE GAS

DENSITY C.OO LBS/CU. FT. ATTRIBUTES STABLE, DANGEROUS

ELEMENTS PRESENT .. CARBON, OXYGEN

COMPOSITION

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.00 DAILY RATE 0.00 BATCH SIZE 0.00

RECLAMATION ACTION .. REDUCE

S/C SUBSYSTEM MICRO BIOLOGY EXPERIMENT (BIO C)
GROUP KEY 3.4.1

** EQUIPMENT/EXPERIMENT NO. 1THE ROLE OF GRAVITY IN GENERAL C ELLULAR FUNCTION

**** WASTE SOURCE NO. 2 MAINTENANCE OF NORMAL GROWTH AND REPRODU

COCUMENT NO. 3.4.1.1.2

REFERENCE NO. 1 .. EXPERIMENT PROGRAM FOR EXTENDED EARTH CR BITAL MISSION, REVISION, SEPTEMBER 1968, NASA OMSF.

REFERENCE NO. 2 .. BICREGENERATIVE SYSTEMS - CONFERENCE HEL D IN WASHINGTON, D.C., NOVEMBER 15-16, 1 966, NASA SP-165.

***** WASTE ITEM NO. 1 GAS RESERVOIR FLASK

STATE SOLID

PENSITY 8.00 LBS/CU. FT.

ATTRIBUTES PLASTIC, CONTAMINATED

ELEMENTS PRESENT ..

COMPOSITION POLYSTYRENE

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.20
DAILY RATE 0.00
BATCH SIZE 0.20

RECLAMATION ACTION .. WASH

***** WASTE ITEM NO. 2 GAS RESERVOIR BOTTLE

- STATE SOLID

DENSITY 8.00 LBS/CU. FT.

ATTRIBUTES PLASTIC, CONTAMINATED

ELEMENTS PRESENT ..

COMPOSITION POLYSTYRENE

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.20
DAILY RATE 0.00
BATCH SIZE 0.20

RECLAMATION ACTION .. WASH

```
S/C SUBSYSTEM .... MICRO BIOLOGY EXPERIMENT (BIO C)
   GROUP, KEY .... 3.4.1
** EJUIPMENT/EXPERIMENT NO. 1 .....THE ROLE OF GRAVITY IN GENERAL C
                                  ELLULAR FUNCTION
**** WASTE SOURCE NO. 2 ... MAINTENANCE OF NORMAL GROWTH AND REPRODU
                           CTION IN FREE CELLS
**** WASTE ITEM NO. 3 .... CULTURE MEDIUM BOTTLE
         STATE ..... SOLID
         DENSITY .....
                             8.00 LBS/CU. FT.
         ATTRIBUTES ..... PLASTIC, CONTAMINATED
         ELEMENTS PRESENT ..
         COMPOSITION ..... POLYSTYRENE
         GENERATION DATA ...
                                        QUANTITY (LBS)
                  EXPT. TOTAL DAILY RATE
                                           2.40
                                           0.00
                  BATCH SIZE
                                           0.20
         RECLAMATION ACTION .. N/R
**** ** WASTE ITEM NO. 4 .... CULTURE FLASK
         STATE ..... SOLID
         DENSITY ..... 8.00 LBS/CU. FT.
         ATTRIBUTES .... PLASTIC, CONTAMINATED
         ELEMENTS PRESENT ..
         COMPOSITION ..... POLYSTYRENE
         GENERATION DATA ...
                                         QUANTITY (LBS)
                  EXPT. TOTAL
                                           0.20
                  DATLY RATE
                                           0.00
                  BATCH SIZE
                                           0.20
         RECLAMATION ACTION .. N/R
**** WASTE ITEM NO. 5 ... SYRINGE
         STATE ..... SOLID
         DENSITY ..... 35.60 LBS/CU. FT.
         ATTRIBUTES .... PLASTIC, CONTAMINATED
         ELEMENTS PRESENT ..
         COMPOSITION ..... POLYSTYRENE
         GENERATION DATA ...
                                         QUANTITY (LBS)
                  EXPT. TOTAL
                                           0.16
                  DAILY RATE
                                           0.00
                  BATCH SIZE
                                           0.01
         RECLAMATION ACTION .. N/R
```

```
S/C SUBSYSTEM .... MICRO BIOLOGY EXPERIMENT (BIO C)
   GROUP KEY ..... 3.4.1
** EQUIPMENT/EXPERIMENT NO. 1 .....THE ROLE OF GRAVITY IN GENERAL C
                                 ELLULAR FUNCTION
**** WASTE SOURCE NO. 2 ... MAINTENANCE OF NORMAL GROWTH AND REPRODU
                          CTION IN FREE CELLS
**** WASTE ITEM NO. 6 ... LYOPHILIZING MILK IN TUBES
         STATE ..... SOLID
         DENSITY ..... 86.40 LBS/CU. FT.
         ATTRIBUTES ..... PLASTIC, ORGANIC, CONTAMINATED
         ELEMENTS PRESENT ..
         COMPOSITION ..... POLYSTYRENE, GEL
         GENERATION DATA ...
                                        QUANTITY (LBS)
                 EXPT. TOTAL
                                          24.00
                  DAILY RATE
                                           0.00
                  BATCH SIZE
                                           0.02
         RECLAMATION ACTION .. N/R
***** WASTE ITEM NO. 7 .... PACKAGING MATERIAL
         STATE ..... SOLID
         DENSITY ..... C.08 LBS/CU. FT.
         ATTRIBUTES ..... PAPER, PLASTIC, CONTAMINATED
         FLEMENTS PRESENT ..
         COMPOSITION ..... CELLULDSE, POLYSTYRENE
         GENERATIEN DATA ...
                                        QUANTITY (LBS)
                  EXPT. TOTAL
                                           0.72
                  DAILY RATE
BATCH SIZE
                                           0.00
                                           0.06
         RECLAMATION ACTION .. REUSE AS IS
ች**** WASTE ITEM NO. 8 .... AUTOCLAVE WASTER WATER
         STATE ..... VAPER
         DENSITY ..... 62.00 LBS/CU. FT.
         ATTRIBUTES .... STEAM
         ELEMENTS PRESENT ..
         CCMPUSITION ..... WATER, IMPURITIES
         GENERATION DATA ...
                                        QUANTITY (LBS)
                  EXPT. TOTAL
                                          45.00
                  DAILY RATE
                                           0.50
                  BATCH SIZE
                                           0.00
        RECLAMATION ACTION .. CONDENSE, STRAIN
```

S/C SUBSYSTEM MICRO BIOLOGY EXPERIMENT (BIO C) OROUP KEY 3.4.1

JKHUP KEY J. 4.1

** FJUITMENT/EXPERIVENT NO.]THE ROLE OF GRAVITY IN GENERAL C ELLULAP FUNCTION

**** WASTE SOURCE NO. 2 MAINTENANCE OF NORMAL GROWTH AND REPRODU

**** ** WASTE ITEM NO. 9 FORMALDEHYDE

STATE LIQUID

DENSITY C.OO LBS/CU. FT.

ATTPIBUTES MIXTURE, CONTAMINATED

ELEMENTS PRESENT ..

COMPOSITION CH2O

GENERATION DATA ... QUANTITY (LBS)

EXP1. TOTAL 0.00 DAILY RATE 0.00 BATCH SIZE 0.00

```
S/C SUBSYSTEM .... MICRO BIOLOGY EXPERIMENT (BIO C) GROUP KEY .... 3.4.1
```

** EQUIPMENT/EXPERIMENT NO. 1THE ROLE OF GRAVITY IN GENERAL C ELLULAR FUNCTION

**** ******************

**** WASTE SOURCE NO. 3 ... MINERAL METABOLISM IN CELLS

DOCUMENT NO. 3.4.1.1.3

REFERENCE NO. I .. EXPERIMENT PROGRAM FOR EXTENDED EARTH OR BITAL MISSION, REVISION, SEPTEMBER 1968, NASA OMSF.

REFERENCE NO. 2 .. BACTERIAL AND MYCOTIC INFECTIONS OF MAN, 4TH EDITION, EDITED BY DUBOS, R.J., AND HIRSCH, J.G., 1965 LIPPINCOTT.

***** WASTE-ITEM NO. 1 LYOPHILIZED MICROORGANISMS AND TUBE

STATE SOLID

DENSITY 25.00 LBS/CU. FT. ATTRIBUTES GLASS, CONTAMINATED

ELEMENTS PRESENT ...

CCMPOSITION BOROSILICATES

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.09
DAILY RATE 0.00
BATCH SIZE 0.03

RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 2 MEDIA IN PLATES

STATE SOLID

DENSITY 34.50 LBS/CU. FT.

ATTRIBUTES PLASTIC, AGARGEL, CONTAMINATED

ELEMENTS PRESENT ..

COMPOSITION POLYSTYRENE, GEL

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 4.50
DAILY RATE 0.05
BATCH SIZE 0.00

```
S/C SUBSYSTEM .... MICRO BIOLOGY EXPERIMENT (BIO C)
    GROUP KEY .... 3.4.1
** EJUIPMENT/EXPERIMENT NO. 1 .....THE ROLE OF GRAVITY IN GENERAL C
                                  FLLULAR FUNCTION
**** NASTE SOURCE NG. 3 .... MINERAL METABOLISM IN CELLS
**** WASTE ITEM NO. 3 ... MEDIA IN TUBES
         STATE ..... SOLID
         DENSITY ..... 86.40 LBS/CU. FT.
         ATTRIBUTES ..... PLASTIC, AGARGEL
         ELEMENTS PRESENT ..
         CCMPOSITION ..... POLYSTYRENE, GEL
         GENERATION DATA ...
                                        QUANTITY (LBS)
                  EXPT. TOTAL
                                          18.00
                  DAILY RATE
                                           0.01
                  BATCH SIZE
                                           0.00
         RECLAMATION ACTION .. N/R
** ** WASTE ITEM NO. 4 .... SYRINGES
         STATE ..... SOLID
         DENSITY ..... 35.60 LBS/CU. FT.
         ATTRIBUTES ..... PLASTIC, CONTAMINATED
         ELEMENTS PRESENT ..
         COMPOSITION ..... POLYSTYRENE
         GENERATION DATA ...
                                        QUANTITY (LBS)
                  EXPT. TOTAL
                                           0.22
                  DAILY RATE
                                           0.00
                  BATCH SIZE
                                           0.00
         RECLAMATION ACTION .. N/R
**** WASTE ITEM NO. 5 ... INNOCULATING NEEDLES
         STATE ..... SOLID
         DENSITY ..... 1.70 LBS/CU. FT.
         ATTRIBUTES ..... PLASTIC, CONTAMINATED
         ELEMENTS PRESENT ..
         COMPOSITION ..... POLYSTYRENE
         GENERATION DATA ...
                                        QUANTITY (LBS)
                  EXPT. TOTAL
                                          0.48
                  DAILY RATE
                                           0.00
                  BATCH SIZE
                                          0.04
         RECLAMATION ACTION .. N/R
```

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S/C SUBSYSTEM MICRO BIOLOGY EXPERIMENT (BIO C) 3ROUP KEY 3.4.1

** EQUIPMENT/EXPERIMENT NO. 1THE ROLE OF GRAVITY IN GENERAL C ELLULAR FUNCTION

**** WASTE SOURCE NO. 3 MINERAL METABOLISM IN CELLS

***** WASTE ITEM NO. 6 ... PACKAGING MATERIAL

STATE SOLID

DENSITY C.OS LBS/CU. FT.

ATTRIBUTES PLASTIC, PAPER, CONTAMINATED

ELEMENTS PRESENT ..

COMPOSITION POLYETHYLENE, CELLULOSE

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 1.80
DAILY RATE 0.02
BATCH SIZE 0.00

RECLAMATION ACTION .. REUSE AS IS

```
S/C SUBSYSTEM .... MICRO BIGLOGY EXPERIMENT (BIO C)
    3POUP KEY .... 3.4.1
** EQUIPMENT/EXPERIMENT NO. 2 ..... GENETIC STABILITY IN FREE CELLS
         ASSOCIATED FPE NUMBER ... 5.25
         S/C AREAS ..... BIC-LARCPATORY
**** WASTE SOURCE NO. 1 .... GENETIC STABILITY IN FREE CELLS
         COCUMENT NO. ..... 3.4.1.2.1*
         REFERENCE NO. 1 .. EXPERIMENT PROGRAM FOR EXTENDED EARTH OR
                           BITAL MISSICN, REVISION, SEPTEMBER 1968,
                            NASA OMSF.
         REFERENCE NO. 2 .. THE EFFECTS OF WEIGHTLESSNESS ON PELOMYX
                           A NUCLEAR AND CELLULAR DIVISION, BIOSCIE
                           NCE, JUNE 1968, VOL. 18, NO. 6, FKBERG, D
                           .R. , SILVER, E.C., BUSHAY, J.L., DANIELS,
         REFERENCE NO. 3 .. THE EFFECTS OF UEIGHTLESSNESS ON PELOMYX
                           A DIGESTION, GROWTH AND LCCCMOTICN, BIOS
                           CIENCE, JUNE 1968, VOL. 18, NO. 6 PRICE
                           , Rowo, AND ABEL, Joho, JR.
**** WASTE ITEM NO. 1 ... CCNTAINER
         STATE ..... SOLID
         DENSITY ..... 8.00 LBS/CU. FT.
         ATTRIBUTES .... PLASTIC, CONTAMINATED
         ELEMENTS PRESENT ..
         COMPOSITION ..... POLYSTYRENE
         GENERATION DATA ...
                                         QUANTITY (LBS)
                  EXPT. TOTAL
                                            0.60
                  DAILY RATE
                                            0.00
                  BATCH SIZE
                                            0.20
         RECLAMATION ACTION .. WASH
**** WASTE ITEM NO. 2 .... GROWTH MEDIUM
         STATE ..... LIQUID
         DENSITY ..... 62.00 LBS/CU. FT.
         ATTRIBUTES ..... MIXTURE, CONTAMINATED, ORGANIC
         ELEMENTS PRESENT .. HYDROGEN, OXYGEN
         COMPOSITION .....
         GENERATION DATA ...
                                         QUANTITY (LBS)
                  EXPT. TOTAL
                                            0.30
                  DAILY RATE
                                           0.00
                  BATCH SIZE
                                           70.10
         RECLAMATION ACTION .. N/R
```

S/C SUBSYSTEM MICRO BIOLOGY EXPERIMENT (BIO C) GROUP KEY 3.4.1 ** EQUIPMENT/EXPERIMENT NO. 2GENETIC STABILITY IN FREE CELLS **** WASTE SOURCE NO. 1 GENETIC STABILITY IN FREE CELLS ***** WASTE ITEM NO. 3 CONGO RED, YEAST, BOTTLE STATE SOLID DENSITY 52.27 LBS/CU. FT. ATTRIBUTES GLASS, ORGANIC ELEMENTS PRESENT .. COMPOSITION BOROSILICATES GENERATION DATA ... QUANTITY (LBS) EXPT. TOTAL 0.12 DAILY RATE 0.00 BATCH SIZE 0.04 RECLAMATION ACTION .. N/R **** WASTE ITEM NO. 4 ... ACETIC ACID, BOTTLE STATE SOLID DENSITY 52.27 LBS/CU. FT. ATTRIBUTES GLASS, CONTAMINATED ELEMENTS PRESENT .. COMPOSITION BORGSILICATES GENERATION DATA ... QUANTITY (LBS) EXPT. TOTAL 0.12 DAILY RATE 0.00 BATCH SIZE 0.04 RECLAMATION ACTION ... WASH ***** WASTE ITEM NO. 5 STAIN, BOTTLE STATE SOLID DENSITY 52.27 LBS/CU. FT. ATTRIBUTES GLASS, CONTAMINATED ELEMENTS PRESENT ... COMPOSITION BOROSTLICATES GENFRATION DATA ... QUANTITY (LBS) EXPT. TOTAL 0.12

0.00

0.04

DAILY RATE

BATCH SIZE

RECLAMATION ACTION .. WASH

```
S/C SUBSYSTEM .... MICRO BIOLOGY EXPERIMENT (BIO C)
   GROUP KEY .... 3.4.1
** EQUIPMENT/EXPERIMENT NO. 2 .....GENETIC STABILITY IN FREE CELLS
**** HASTE SOURCE NO. 1 .... GENETIC STABILITY IN FREE CELLS
***** WASTE ITEM NO. 6 ... PASTEUR PIPETTE
         STATE ..... SOLID
         DENSITY .....
                           17.28 LBS/CU. FT.
         ATTRIBUTES ..... GLASS, CONTAMINATED
         ELEMENTS PRESENT ..
         COMPOSITION ..... BORGSILICATES
         GENERATION DATA ...
                                        QUANTITY (LBS)
                  EXPT. TOTAL
                                           0.90
                  DAILY RATE
                                           0.01
                  BATCH SIZE
                                           0.00
         RECLAMATION ACTION .. STERILIZE
***** WASTE ITEM NO. 7 ... PIPETTE BULB
         STATE ..... SCLID
         DENSITY ..... 59.00 LBS/CU. FT.
         ATTRIBUTES ...... RUBBER, CONTAMINATED
         ELEMENTS PRESENT .. SILICONES
         COMPOSITION .....
         GENERATION DATA ...
                                        QUANTITY (LBS)
                  EXPT. TOTAL
                                           0.04
                  DAILY RATE
                                           0.00
                  BATCH SIZE
                                           0.00
         RECLAMATION ACTION .. REUSE AS IS
***** WASTE ITEM NO. 8 ... STYKES-MOORE CHAMBER
         STATE ..... SCLID
         DENSITY ..... 8.64 LBS/CU. FT.
         ATTRIBUTES ..... GLASS, CONTAMINATED
         ELEMENTS PRESENT ..
         COMPOSITION ..... BORDSILICATES
         GENERATION DATA ...
                                        QUANTITY (LBS)
                  EXPT. TOTAL
                                           1.80
                  DAILY RATE
                                           0.02
                  BATCH SIZE
                                           0.00
         RECLAMATION ACTION .. WASH
```

```
S/C SUBSYSTEM .... MICRO BIOLOGY EXPERIMENT (BIO C) GROUP KEY .... 3.4.1
```

** EQUIPMENT/EXPERIMENT NO. 2GENETIC STABILITY IN FREE CFLLS
*** WASTE SOURCE NO. 1 GENETIC STABILITY IN FREE CELLS

***** WASTE ITEM NO. 9 ... LIGHT BULB

STATE SOLID

DENSITY 13.82 LBS/CU. FT. ATTRIBUTES GLASS, DEFECTIVE

ELEMENTS PRESENT ...

COMPOSITION BORDSILICATES

GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.03

DAILY RAIE 0.00
BATCH SIZE 0.03

RECLAMATION ACTION .. N/R

✓ ★***** WASTE ITEM NO. 10 PACKAGING MATERIAL

STATE SOLID

DENSITY C. 08 LBS/CU. FT.

ATTRIBUTES PAPER, PLASTIC, CONTAMINATED

FLEMENTS PRESENT ..

CCMPOSITION CELLULOSE, POLYETHYLENE

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.75
DAILY RATE 0.00
BATCH SIZE 0.25

RECLAMATION ACTION .. REUSE AS IS

S/C SUBSYSTEM MICRO BIOLOGY EXPERIMENT (BIO C) FROUP KEY 3.4.1

** EQUIPMENT/EXPERIMENT NO. 3 THE ROLE OF GRAVITY IN TISSUE FUNCTION

ASSCCIATED FPE NUMBER ... 5.25 S/C AREAS BIC-LABORATORY

**** WASTE SOURCE NO. 1 ... ANIMAL TISSUE DEVELOPMENT

DOCUMENT NO. 3.4.1.3.1

PEFERENCE NO. 1 .. EXPERIMENT PROGRAM FOR EXTENDED EARTH OR BITAL MISSIONS, REVISION NO. 1 NASA OFFI CF OF MANNED SPACE FLIGHT, SEPTEMBER 1, 1969.

REFERENCE NO. 2 .. TISSUE CULTURE, A MANUAL OF MATERIALS AN D METHODS. BBL.

REFERENCE NO. 3 .. CELLS AND TISSUES IN CULTURE, METHODS, B IDLOGY AND PHYSIOLOGY, EDITED BY WILLMER, E.N., 1965 ACADEMIC PRESS.

**** WASTE ITEM NO. 1 TISSUE CULTURE DISH

STATE SOLID

DENSITY 6.80 LRS/CU. FT.

ATTRIBUTES PLASTIC, CONTAMINATED

ELEMENTS PRESENT ..

CCMPOSITION POLYSTYRENE

GENERATICY DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.05
DAILY PATE 0.00
BATCH SIZE 0.05

RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 2 TISSUE CULTURE TUBES

STATE SOLID

DENSITY 5.00 LPS/CU. FT. ATTRIBUTES PLASTIC CONTAMINATED

ELEMENTS PRESENT ...

COMPOSITION POLYSTYRENE

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 2.40
DAILY RATE 0.00
BATCH SIZE 0.20

RECLAMATION .. N/R

S/C SUBSYSTEM MICRO BIOLOGY EXPERIMENT (BIO C) GROUP KEY 3.4.1 ** EQUIPMENT/EXPERIMENT NO. 3 THE ROLE OF GRAVITY IN TISSUE FU NCTION *** WASTE SOURCE NO. 1 ANIMAL TISSUE DEVELOPMENT ***** WASTE ITEM NO. 3 SLIDES STATE SOLID DENSITY 190.80 LBS/CU. FT. ATTRIBUTES GLASS, CONTAMINATED ELEMENTS PRESENT .. COMPOSITION BOROSILICATES QUANTITY (LBS) GENERATION DATA ... EXPT. TOTAL 0.90 DAILY RATE 0.01 0.00 BATCH SIZE RECLAMATION ACTION .. N/R ***** WASTE ITEM NO. 4 FORCEPS STATE SOLID DENSITY 49C.00 LBS/CU. FT. ATTRIBUTES METAL, CONTAMINATED ELEMENTS PRESENT .. COMPOSITION STEEL GENERATION DATA ... QUANTITY (LBS) EXPT. TOTAL 2.70 DAILY RATE 0.03 BATCH SIZE 0.00 RECLAMATION ACTION .. STERILIZE **** WASTE ITEM NO. 5 ... SCISSORS STATE SOLID DENSITY 490.00 LBS/CU. FT. ATTRIBUTES METAL, CONTAMINATED ELEMENTS PRESENT .. COMPOSITION STEEL GENERATION DATA ... QUANTITY (LBS) EXPT. TOTAL 6.30 DAILY RATE 0.07 BATCH SIZE 0.00 RECLAMATION ACTION .. STERILIZE

S/C SURSYSTEM MICRO BIOLOGY EXPERIMENT (BIO C) GROUP KEY 3.4.1 ** FQUIPMENT/EXPERIMENT NO. 3THE ROLE OF GRAVITY IN TISSUE FU NCTION **** WASTE SCURCE NO. 1 ANIMAL TISSUE DEVELOPMENT **************** **** WASTE ITEM NO. 6 ... TISSUE CULTURE MEDIA BOTTLE STATE SGLID DENSITY 8.00 LBS/CU. FT. ATTRIBUTES PLASTIC, CONTAMINATED ELEMENTS PRESENT .. COMPIJSITION POLYSTYRENE GENERATION DATA ... QUANTITY (LBS) EXPT. TOTAL 2.40 DAILY RATE 0.00 BATCH SIZE 0.80 RECLAMATION ACTION .. N/R ***** WASTE ITEM NO. 7 TISSUE CULTURE MEDIUM REHYDRATING STATE SOLID DENSITY 8.00 LBS/CU. FT. ATTRIBUTES PLASTIC, CONTAMINATED ELEMENTS PRESENT .. CCMPOSITION POLYSTYRENE GENERATION DATA ... QUANTITY (LBS) EXPT. TOTAL 2.40 DAILY RATE 0.00 BATCH SIZE 0.80 RECLAMATION ACTION .. N/R ***** WASTE ITEM NO. 8 STAIN AND BOTTLE STATE SOLID DENSITY 52.27 LBS/CU. FT. ATTRIBUTES GLASS, CONTAMINATED ELEMENTS PRESENT .. COMPOSITION BOROSILICATES GENERATION DATA ... QUANTITY (LBS) EXPT. TOTAL 0.12 DAILY RATE 0.00

0.04

SATCH SIZE

RECLAMATION ACTION .. WASH

```
S/C SUBSYSTEM .... MICRO BIDL(CY EXPERIMENT (BIO C)
   SROUP KEY .... 3.4.1
** E JUIPMENT/EXPERIMENT NO. 3 .....THE ROLE OF GRAVITY IN TISSUE FU
                                   NCTION
**** WASTE SOURCE NO. 1 .... ANIMAL TISSUE DEVELOPMENT
**** WASTE ITEM NO. 9 .... SYRINGE
         STATE ..... SOLID
         DENSITY ....... 35.60 LBS/CU. FT. ATTRIBUTES ..... PLASTIC, CONTAMINATED
         ELEMENTS PRESENT ..
         COMPOSITION ..... POLYSTYRENE
         GENERATION DATA ...
                                          QUANTITY (LBS)
                  EXPT. TOTAL
                                            1.17
                  DAILY RATE
                                            0.00
                  BATCH SIZE
                                             0.03
         RECLAMATION ACTION .. N/R
**** WASTE ITEM NO. 10 .... TISSUE CULTURE GRID
         STATE ..... SOLID
         DENSITY ..... 190.00 LBS/CU. FT.
         ATTRIBUTES ..... METAL, CONTAMINATED
         ELEMENTS PRESENT ..
         COMPOSITION ..... STEEL
         GENERATION DATA ...
                                          QUANTITY (LBS)
                  EXPT. TOTAL
                                            0.00
                  DAILY RATE
                                             0.00
                  BATCH SIZE
                                            0.02
         RECLAMATION ACTION .. STERILIZE
**** WASTE ITEM NO. 11 .... HEAMOCYTCMETER
         STATE ..... SCLID
         DENSITY ...... 45.12 LBS/CU. FT.
         ATTRIBUTES ..... GLASS, CONTAMINATED
         ELEMENTS PRESENT ...
         COMPOSITION ..... BOROSILICATES
         GENERATION DATA ...
                                          QUANTITY (LBS)
                  EXPT. TOTAL
                                            9.00
                  DAILY RATE
                                             0.10
                  BATCH SIZE
                                            0.00
         RECLAMATION ACTION .. WASH
```

S/C SUBSYSTEM MICRO BIOLOGY EXPERIMENT (BIO () JROUP KEY 3.4.1

** F JUIPMENT/EXPERIMENT NO. 3 THE ROLE OF GRAVITY IN TISSUE FU

NCTION

***** WASTE ITEM NO. 12 PACKAGING MATERIAL

STATE SOLID

DENSITY C.03 LBS/CU. FT.

ATTRIBUTES PAPER, PLASTIC, CONTAMINATED

CLEMENTS PRESENT ..

COMPOSITION CELLULOSE, POLYETHYLENE

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 2.70
DAILY RAIE 0.03
BATCH SIZE 0.00

RECLAMATION ACTION .. REUSE AS IS

S/C SUBSYSTEM MICRO BIOLOGY EXPERIMENT (BIO C) SROUP KEY 3.4.1

** EQUIPMENT/EXPERIMENT NO. 3THE ROLE OF GRAVITY IN TISSUE FU NCTION

**** WASTE SOURCE NO. 2 PLANT TISSUF DEVELOPMENT

DOCUMENT NO. 3.4.1.3.2

REFERENCE NO. 1 .. EXPERIMENT PROGRAM FOR EXTENDED EARTH OR BITAL MISSIONS, REVISION NO. 1, NASA OMS F. SEPTEMBER 1, 1969.

REFERENCE NO. 2 .. TISSUE CULTURE, A MANUAL OF MATERIALS AN D METHODS. BBL.

***** WASTE ITEM NO. 1 SYRINGES

STATE SOLID

DENSITY 35.60 LBS/CU. FT. ATTRIBUTES PLASTIC, CONTAMINATED

ELEMENTS PRESENT ..

COMPOSITION POLYSTYRENE

GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.31

DAILY RATE 0.00 BATCH SIZE 0.03

RECLAMATION ACTION .. N/R

**** WASTE ITEM NO. 2 ... TISSUE CULTURE MEDIUM BOTTLE

STATE SOLID

DENSITY 8.00 LBS/CU. FT.

ATTRIBUTES PLASTIC, CONTAMINATED

ELEMENTS PRESENT ..

COMPOSITION POLYSTYRENE

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.60
DAILY RATE 0.00
BATCH SIZE 0.20

```
S/C SUBSYSTEM .... MICRO BIOLOGY EXPERIMENT (BIO C)
    GROUP KEY .... 3.4.1
** EQUIPMENT/EXPERIMENT NO. 3 .....THE ROLE OF GRAVITY IN TISSUE FU
                                   NCTION
*** WASTE SOURCE NO. 2 .... PLANT TISSUE DEVELOPMENT
******************
**** WASTE ITEM NO. 3 .... REHYDRATING FLUID BOTTLE
         STATE ..... SOLID
         DENSITY ......
                           8.00 LBS/CU. FT.
         ATTRIBUTES ..... PLASTIC, CONTAMINATED
         ELEMENTS PRESENT ..
         CCMPOSITION ..... POLYSTYRENE
                                         QUANTITY (LBS)
         GENERATION DATA ...
                  EXPT. TOTAL
                                            0.60
                                            0.00
                  DAILY RATE
                                            0.20
                  BATCH SIZE
         RECLAMATION ACTION .. N/R
**** WASTE ITEM NO. 4 .... FORCEPS
         STATE ..... SCLID
         DENSITY ..... 490.00 LBS/CU. FT.
         ATTRIBUTES ..... METAL, CONTAMINATED
         ELEMENTS PRESENT ..
         COMPOSITION ..... STEEL
                                         QUANTITY (LBS)
         GENERATION DATA ...
                  EXPT. TOTAL
                                            0.36
                  DAILY RATE
                                            0.00
                                            0.03
                  BATCH SIZE
         RECLAMATION ACTION .. STERILIZE
**** ** WASTE ITEM NO. 5 .... PACKAGING MATERIAL
         STATE ..... SOLID
         DENSITY ..... 0.08 LBS/CU. FT.
         ATTRIBUTES ..... PAPER, PLASTIC, CONTAMINATED
         ELEMENTS PRESENT ..
         COMPOSITION .....
                                          QUANTITY (LBS)
         GENERATION DATA ...
                                            0.12
                  EXPT. TOTAL
                                            0.00
                  DAILY RATE
                  BATCH SIZE
                                            0.01
         RECLAMATION ACTION .. REUSE AS IS
```

S/C SUBSYSTEM MICRO BIOLOGY EXPERIMENT (BIO C) SROUP KEY 3.4.1

** FQUIPMENT/EXPERIMENT NO. 4 DEVELOPMENT IN THE ANIMAL EMBRYO

ASSOCIATED FPE NUMBER ... 5.25
S/C AREAS BIC-LABORATORY

**** WASTE SOURCE NO. 1 DEVELOPMENT IN THE ANIMAL EMBRYO

DOCUMENT NO. 3.4.1.4.1*

REFERENCE NO. 1 .. EXPERIMENT PROGRAM FOR EXTENDED EARTH OR BITAL MISSIONS, REVISION NO. 1, NASA OFF ICE OF MANNED SPACE FLIGHT, SEPTEMBER 1, 1969.

REFERENCE NO. 2 .. CELLS AND TISSUE IN CULTURE, METHODS, BI OLCGY AND PHYSIOLOGY, EDITED BY WILLKER, E.N., 1965 ACADEMIC PRESS.

REFERENCE NO. 3 .. VIRAL AND RICKETTSIAL INFECTIONS OF MAN, HCRSFALL, F.L., TAMM, I., 1965 LIPPINCO TT.

***** WASTE ITEM NO. 1 PETRI DISH AND EGG SHELL

STATE SOLID

DENSITY 5.00 LBS/CU. FT.

ATTRIBUTES PLASTIC, ORGANIC, CONTAMINATED

ELEMENTS PRESENT ..

COMPOSITION POLYSTYRENE

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 2.70
DAILY RATE 0.03
BATCH SIZE 0.00

RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 2 ... CURVED FORCEPS

STATE SOLID

DENSITY 490.00 LBS/CU. FT. ATTRIBUTES METAL, CONTAMINATED

ELEMENTS PRESENT ..

COMPOSITION STEEL

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 2.70 DAILY RATE 0.03 BATCH SIZE 0.00

RECLAMATION ACTION .. STERILIZE

S/C SUBSYSTEM MICRO BICLOGY EXPERIMENT (BIO C)
GROUP KEY 3.4.1

**** WASTE ITEM NO. 3 ... STPAIGHT FORCEPS

STATE SOLID

DENSITY 49C.00 LBS/CU. FT. ATTRIBUTES METAL, CONTAMINATED

ELEMENTS PRESENT ..

COMPOSITION STEEL

GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 2.70
DAILY RATE 0.03
- BATCH SIZE 0.00

RECLAMATION ACTION .. STERILIZE

**** WASTE ITEM NO. 4 SCISSORS

STATE SOLID

DENSITY 490.00 LBS/CU. FT. ATTRIBUTES METAL, CONTAMINATED

ELEMENTS PRESENT ..

COMPOSITION STEEL

GENERATION DATA ... QUANTITY (LPS)
EXPT. TOTAL 6.30

DAILY RATE 0.07
BATCH SIZE 0.00

RECEAMATION ACTION .. STERILIZE

***** WASTE ITEM NO. 5 PACKAGING MATERIAL

STATE SOLID

DENSITY 0.08 LBS/CU. FT.

ATTRIBUTES PAPER, CELLULOSE, CONTAMINATED

ELEMENTS PRESENT ..

COMPOSITION CELLULOSE, POLYETHYLENE

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 2.70
DAILY RATE 0.03
BATCH SIZE 0.00

PECLAMATION ACTION .. REUSE AS IS

S/C SUBSYSTEM MICRO BIOLOGY EXPERIMENT (BIO C) GROUP KEY 3.4.1

***** WASTE ITEM NO. 6 PAPER TOWEL

STATE SOLID

DENSITY 6.07 LBS/CU. FT.

ATTRIBUTES PAPER, TOWEL

ELEMENTS PRESENT ..

COMPOSITION CELLULOSE

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.90 DAILY RATE 0.01 BATCH SIZE 0.00

```
S/C SUBSYSTEM .... MICRO BIOLOGY EXPERIMENT (BIO C)
   GROUP KEY .... 3.4.1
******************
** EQUIPMENT/EXPERIMENT NO. 5 .... HOST-PARASITE RELATIONSHIPS
         ASSOCIATED FPE NUMBER ... 5.25
         S/C AREAS ..... BIC-LABORATORY
**** WASTE SOURCE NO. 1 .... HOST-PARASITE RELATIONSHIPS
         DOCUMENT NO. ..... 3.4.1.5.1*
         REFERENCE NO. 1 .. EXPERIMENT PROGRAM FOR EXTENDED EARTH OR
                            BITAL MISSIONS, REVISION NO. 1, NASA OMS
                            F, SEPTEMBER 1, 1969.
***** WASTE ITEM NO. 1 .... MICROORGANISMS, TUBE, DISTILLED WATER
         STATE ..... SDLID
         DENSITY ..... 8.64 LBS/CU. FT.
         ATTRIBUTES .... GLASS, CONTAMINATED
         ELEMENTS PRESENT ..
         CCMPOSITION ..... BOROSILICATES
         GENERATION DATA ...
                                         QUANTITY (LBS)
                  EXPT. TOTAL
                                           0.90
                  DAILY RATE
                                            0.00
                  BATCH SIZE
                                            0.30
         RECLAMATION ACTION .. N/R
**** WASTE ITEM NO. 2 .... PHAGE, TUBE, DISTILLED WATER
         STATE ..... SOLID
         DENSITY ..... 8.64 LBS/CU. FT.
         ATTRIBUTES .... GLASS CONTAMINATED
         ELEMENTS PRESENT ..
         COMPOSITION ..... BORDSILICATES
         GENERATION DATA ...
                                         QUANTITY (LBS)
                  EXPT. TOTAL
                                            1.80
                  DAILY RATE
                                            0.00
                  BATCH SIZE
                                            0.60
         RECLAMATION ACTION .. N/R
***** WASTE ITEM NO. 3 .... MEDIA IN TUBES
         STATE ..... SOLID
         DENSITY ..... 86.40 LBS/CU. FT.
         ATTRIBUTES ..... PLASTIC, GEL, ORGANIC, CONTAMINATED
         ELFMENTS PRESENT ..
         COMPOSITION ..... POLYSTYRENE
         GENERATION DATA ...
                                         QUANTITY (LBS)
                  EXPT. TOTAL
DAILY RATE
BATCH SIZE
                                           12.00
                                           0.00
                                            1.00
         RECLAMATION ACTION .. N/R
```

S/C SUBSYSTEM MICRO BIOLOGY EXPERIMENT (310 C) GROUP KEY 3.4.1 ** EQUIPMENT/EXPERIMENT NO. 5HOST-PARASITE RELATIONSHIPS **** WASTE SOURCE NO. 1 HOST-PARASITE RELATIONSHIPS ***** WASTE ITEM NO. 4 MEDIA IN PLATES STATE SOLID DENSITY 34.50 LBS/CU. FT. ATTPIBUTES PLASTIC, GEL, ORGANIC, CONTAMINATED ELEMENTS PRESENT .. COMPOSITION POLYSTYRENE GENERATION DATA ... QUANTITY (LBS) EXPT. TOTAL 6.00 DAILY RATE 0.00 0.50 BATCH SIZE RECLAMATION ACTION .. N/R **** WASTE ITEM NO. 5 INNOCULATING NEEDLES STATE SOLID DENSITY C.30 LBS/CU. FT. ATTRIBUTES PLASTIC, CONTAMINATED ELEMENTS PRESENT .. COMPOSITION POLYSTYRENE GENERATION DATA ... QUANTITY (LBS) EXPT. TOTAL 0.30 DAILY RATE 0.00 10.25 BATCH SIZE RECLAMATION ACTION .. N/R **** WASTE ITEM NO. 6 SYRINGES

STATE SOLID

DENSITY 35.60 LBS/CU. FT. ATTRIBUTES PLASTIC, CONTAMINATED

ELEMENTS PRESENT ...

COMPOSITION POLYSTYRENE

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.39

DAILY RATE 0.00

BATCH SIZE 0.13

S/C SUBSYSTEM MICRO BIOLOGY EXPERIMENT (BIO C) GROUP KEY 3.4.1 ** EQUIPMENT/EXPERIMENT NO. 5HOST-PARASITE RELATIONSHIPS *** WASTE SOURCE NO. 1 ... HOST-PARASITE RELATIONSHIPS ***** WASTE ITEM NO. 7 LYCPHILIZING MILK IN TUBES STATE SOLID DENSITY O.OO LBS/CU. FT. ATTRIBUTES PLASTIC, GEL, DRGANIC, CONTAMINATED ELEMENTS PRESENT .. COMPOSITION POLYSTYRENE QUANTITY (LBS) GENERATION DATA ... 1.20 EXPT. TOTAL DAILY RATE 0.00 0.10 BATCH SIZE RECLAMATION ACTION .. N/R **** ** WASTE ITEM NO.__8 PAPER TOWELS STATE SOLID DENSITY 6.07 LBS/CU. FT. ATTRIBUTES PAPER, CONTAMINATED ELEMENTS PRESENT .. COMPOSITION CELLULOSE GENERATION DATA ... QUANTITY (LBS) EXPT. TOTAL 5.40 DAILY RATE 0.06 BATCH SIZE 0.00 RECLAMATION ACTION .. N/R ***** WASTE ITEM NO. 9 PACKAGING MATERIAL STATE SOLID C.O8 LBS/CU. FT. DENSITY ATTRIBUTES PAPER, PLASTIC, CONTAMINATED ELFMENTS PRESENT .. COMPOSITION CELLULOSE, POLYETHYLENE GENERATION DATA ... QUANTITY (LBS) EXPT. TOTAL 3.00 DAILY RATE 0.00 BATCH SIZE 0.25 RECLAMATION ACTION .. REUSE AS IS

S/C SUBSYSTEM MICRO BIOLOGY EXPERIMENT (BIO C) SROUP KEY 3.4.1

** E QUIPMENT/EXPERIMENT NO. 6 BIORYTHMS IN MICROORGANISMS

ASSOCIATED FPE NUMBER ... 5.25 S/C AREAS BIG-LABORATORY

**** WASTE SOURCE NO. 1 BIORYTHMS IN MICRODRGANISMS

COCUMENT NO. 3.4.1.6.1*

REFFRENCE NO. 1 .. EXPERIMENT PROGRAM FOR EXTENDED EARTH OR BITAL MISSIONS, REVISION NO. 1, NASA OFF ICE OF MANNED SPACE FLIGHTS, SEPTEMBER 1, 1969

REFERENCE NO. 2 .. DIAGNOSTIC MJCROBIOLOGY, 1966 2ND EDITIO N, BAILEY, W.R., SCOTT, E.G., THE C. V. MOSBY COMPANY.

REFERENCE NO. 3 .. THE COMBINED EFFECT OF WEIGHTLESSNESS AN D RADIATION ON INACTIVATION AND MUTATION ETC. DESERRES, F. J., WEBBER, B.B., JUNE 1 968, BIOSCIENCE VOLUME 18, NO. 6.

***** WASTE ITEM NO. 1 LYDPHILIZED NEUROSPORA, H20, TUBES

STATE SOLID

DENSITY 8.64 LBS/CU. FT. ATTRIBUTES GLASS, CONTAMINATED

ELFMENTS PRESENT ..

COMPOSITION BORDSILICATES

GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 1.56
DAILY RATE 0.00
BATCH SIZE 0.52

RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 2 LYOPHILIZING MILK IN TUBES

STATE SOLID

DENSITY 86.40 LBS/CU. FT.

ATTRIBUTES PLASTIC, ORGANIC, CONTAMINATED

ELEMENTS PRESENT ..

COMPOSITION POLYSTYRENE

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 1.20
DAILY RATE 0.00
BATCH SIZE 0.40

```
S/C SUBSYSTEM .... MICRO BIOLOGY FXPERIMENT (BIO C)
    GROUP KEY .... 3.4.1
** EQUIPMENT/EXPERIMENT NO. 6 .....BIORYTHMS IN MICROORGANISMS
**** WASTE SOURCE NO. 1 .... BIORYTHMS IN MICROORGANISMS
**************
**** WASTE ITEM NO. 3 .... MEDIA IN TUBES
         STATE ..... SOLID
         DENSITY ..... 86.40 LBS/CU. FT.
         ATTRIBUTES ..... PLASTIC, GEL, CONTAMINATED
         ELEMENTS PRESENT ...
         COMPOSITION ..... POLYSTYRENE, AGAR GEL
                                          QUANTITY (LBS)
         GENERATION DATA ...
                                             4-80
                   EXPT. TOTAL
                   DAILY RATE
                                             0.00
                                             0.40
                   BATCH SIZE
         RECLAMATION ACTION .. N/R
**** WASTE ITEM NO. 4 .... SYRINGES
         STATE ..... SOLID
         DENSITY ..... 35.60 LBS/CU. FT.
         ATTRIBUTES ..... PLASTIC, CONTAMINATED
         ELEMENTS PRESENT ..
         CCMPOSITION .... POLYSTYRENE
                                           QUANTITY (LBS)
         GENERATION DATA ...
                   EXPT. TOTAL
                                             0.72
                   DAILY RATE
                                             0.00
                                             0.24
                   BATCH SIZE
         RECLAMATION ACTION .. N/R
***** WASTE ITEM NO. 5 .... INNOCULATING NEEDLES
       - STATE ..... SOLID
         DENSITY ..... 0.30 LBS/CU. FT.
         ATTRIBUTES ..... PLASTIC, CONTAMINATED
         ELEMENTS PRESENT ..
```

COMPOSITION POLYSTYRENE

EXPT. TOTAL

DAILY RATE

BATCH SIZE

RECLAMATION ACTION .. N/R

GENERATION DATA ...

QUANTITY (LBS)

0.48

0.00

0.04

```
S/C SUBSYSTEM .... MICRO BICLOGY EXPERIMENT (BIO C)
     GROUP KEY .... 3.4.1
 ** FJUIPMENT/EXPERIMENT NO. 6 .....BJORYTHMS IN MICROORGANISMS
 **** WASTE SOURCE NO. 1 .... BICRYTHMS IN MICRODRGANISMS
 ***** WASTE ITEM NO. 6 .... PAPER TOWELS
          STATE ..... SOLID
          DENSITY ..... 6.07 LBS/CU. FT.
          ATTRIBUTES ..... PAPER, CONTAMINATED
          ELEMENTS PRESENT ..
          CGMPOSITION ..... CELLULOSE
          GENERATION DATA ...
                                          QUANTITY (LBS)
                   EXPT. TOTAL
                                            5.40
                   DAILY RATE
                                            0.06
                   BATCH SIZE
                                            0.00
          RECLAMATION ACTION .. N/R
/ *** * WASTE ITEM NO. 7 .... PACKAGING MATERIAL
          STATE ..... SOLID
          DENSITY ..... C.08 LBS/CU. FT.
          ATTRIBUTES ..... PAPER, PLASTIC
          ELEMENTS PRESENT ..
          COMPOSITION ..... POLYETHYLENE, CELLULCSE
          GENERATION DATA ...
                                          QUANTITY (LBS)
                   EXPT. TOTAL DAILY RATE
                                            3.00
                                            0.00
                   BATCH SIZE
                                            0.25
          RECLAMATION ACTION .. REUSE AS IS
```

S/C SUBSYSTEM MICRO BIOLOGY EXPERIMENT (BIO C) 3ROUP KEY 3-4.1 ** EQUIPMENT/EXPERIMENT NO. 7 WEIGHTLESSNESS AND MOLFCULAR REA CTIONS IN VITRO ASSOCIATED FPE NUMBER ... 5.25 S/C AREAS BIO-LABORATORY **** WASTE SOURCE NO. 1 ... WEIGTLESSNESS AND MOLECULAR REACTIONS IN VITRO DGCUMENT NO. 3.4.1.7.1* REFERENCE NO. 1 .. EXPERIMENT PROGRAM FOR EXTENDED EARTH OR BITAL MISSIONS, REVISION NO. 1, NASA OMSF , SEPTEMBER 1, 1969 . **** WASTE ITEM NO. 1 ... REAGENT BOTTLES STATE SOLID DENSITY 8.00 LBS/CU. FT. ATTRIBUTES PLASTIC, CONTAMINATED ELEMENTS PRESENT .. COMPOSITION POLYSTYRENE GENERATION DATA ... QUANTITY (LBS) EXPT. TOTAL 7.20 DAILY RATE 0.00 BATCH SIZE 0.16 RECLAMATION ACTION .. WASH ***** WASTE ITEM NO. 2 PAPER TOWELS STATE SOLID DENSITY 6.07 LBS/CU. FT. ATTRIBUTES PAPER, CONTAMINATED ELEMENTS PRESENT ... COMPOSITION CELLULOSE QUANTITY (LBS) GENERATION DATA ... EXPT. TOTAL 5.40 DAILY RATE 0.06 BATCH SIZE 0.00 RECLAMATION ACTION .. NONE ***** WASTE ITEM NO. 3 COLORIMETRIC BLANKS STATE SOLID DENSITY 8.64 LBS/CU. FT. ATTRIBUTES GLASS, CONTAMINATED FLEMENTS PRESENT .. COMPOSITION BOROSILICATES

RECLAMATION ACTION .. WASH

EXPT. TOTAL DAILY RATE

BATCH SIZE

GENERATION DATA ...

QUANTITY (LBS)

7.20

0.00

```
S/C SUBSYSTEM .... MICRO BIOLOGY EXPERIMENT (BIO C)
   GROUP KEY .... 3.4.1
** EQUIPMENT/EXPERIMENT NO. 7 .....WEIGHTLESSNESS AND MOLECULAR REA
                                 CTIONS IN VITRO
**** waste source no. 1 .... Weigtlessness and molecular reactions in
                           VITRO
**** WASTE ITEM NO. 4 ... DEFECTIVE BULB
         STATE ..... SOLID
         DENSITY ..... 13.82 LBS/CU. FT.
         ATTRIBUTES ..... GLASS, DEFECTIVE
         ELEMENTS PRESENT ..
         COMPOSITION ..... BORDSILICATES
         GENERATION DATA ...
                                        QUANTITY (LBS)
                 EXPT. TOTAL
                                          0.08
                                          0.00
                 DAILY RATE
                 BAICH SIZE
                                          0.03
         RECLAMATION ACTION .. NONE
**** ** WASTE ITEM NO. 5 .... PACKAGING MATERIAL
         STATE ..... SOLID
         DENSITY ..... G.OB LBS/CU. FT.
         ATTRIBUTES ..... PAPER, PLASTIC, CONTAMINATED
         ELEMENTS PRESENT ..
         CCMPOSITION ..... CELLULOSE, POLYETHYLFNE
         GENERATION DATA ...
                                        QUANTITY (LBS)
                 EXPT. TCTAL
                                          0.54
                 DAILY RATE
                                          0.00
                 BATCH SIZE
                                          0.02
        RECLAMATION ACTION .. REUSE AS IS
```

S/C SUBSYSTEM INVERTEBRATES EXPERIMENT SROUP KEY 3.4.2

BASIC FUNCTION PERFORM MISSION TASKS
FUNCTIONAL REQUIREIEN PIOLOGICAL SCIENCES AND BIOTECHN
OLOGY STUDIES

** EQUIPMENT/EXPERIMENT NO. 1 THE INVERTERRATE ORGANISM AND IT S LIFE CYCLE

ASSOCIATED FPE NUMBER ... 5.26 S/C AREAS BIG-LABORATORY

*** WASTE SOURCE NO. 1 THE INVERTEBRATE ORGANISMS AND ITS LIFE CYCLE

DOCUMENT NO. 3.4.2.1.1*

REFERENCE NO. 1 .. EXPERIMENT PROGRAM FOR EXTENDED EAPTH OR
BITAL MISSION REVISION DATA MAY 1969, NA
SA OFFICE MANNED SPACE

REFERENCE NO. 2 .. MANDMETRIC TECHNIQUES- 4TH EDITION 1964,
UMBRIET, W.W BURRIS, R.H. STAUFFER
, J.F. BURGESS PUBLISHING CO.

REFERENCE NO. 3 .. EXPERIMENTS IN GENETICS WITH DROSOPHILA 1962 STRICKBERGER, M.W. JOHN WILEY AND SONS.

***** WASTE ITEM NO. 1 CARBON DIOXIDE

STATE GAS

DENSITY 0.00 LBS/CU. FT.

ATTRIBUTES STABLE, DANGEROUS

ELEMENTS PRESENT .. CARBON, OXYGEN

COMPOSITION

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.00
DAILY RATE 0.00
BATCH SIZE 0.00

RECLAMATION ACTION .. REDUCE

**** ** WASTE ITEM NO. 2 YEAST SOLUTION, BOTTLE

STATE SOLID GEL, GLASS DENSITY 5.29 LBS/CU. FT.

ATTRIBUTES CONTAMINATED

ELEMENTS PRESENT ..

COMPOSITION ORGANIC BORDSILICATES

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.12 , DAILY RATE 0.00 BATCH SIZE 0.04

```
S/C SUBSYSTEM .... INVERTEBRATES EXPERIMENT
   3ROUP KEY .... 3.4.2
** EQUIPMENT/EXPERIMENT NO. 1 ..... THE INVERTEBRATE ORGANISM AND IT
                                  S LIFE CYCLE
**** WASTE SOURCE NO. 1 ... THE INVERTEBRATE ORCANISMS AND ITS LIFE
                          CYCLE
***** WASTE ITEM NO. 3 .... WATCH GLASS
         STATE ..... SOLID GLASS
         DENSITY ..... 5.16 LBS/CU. FT.
         ATTRIBUTES .... CONTAMINATED
         ELEMENTS PRESENT ...
         COMPOSITION ..... BOROSILICATES
         GENERATION DATA ...
                                        QUANTITY (LBS)
                 EXPT. TOTAL
                                          9.00
                  DAILY RATE
                                          0.10
                  BATCH SIZE
                                           0.00
        RECLAMATION ACTION .. WASH
***** WASTE ITEM NO. 4 ... COUNTING PLATE
         STATE ..... SOLID GLASS
         DFNSITY ..... 42.17 LBS/CU. FT.
         ATTRIBUTES .... CONTAMINATED
         ELEMENTS PRESENT ...
        COMPOSITION ..... BOROSILICATES
         GENERATION DATA ...
                                        QUANTITY (LBS)
                  EXPT. TOTAL
                                          9.00
                  DAILY RATE
                                           0.10
                  BATCH SIZE
                                          0.00
        RECLAMATION ACTION .. WASH
***** WASTE ITEM NO. 5 ... FORCEPS
         STATE ..... SOLID
        DENSITY ..... 49C.00 LBS/CU. FT.
         ATTRIBUTES ..... METAL, CONTAMINATED
         ELEMENTS PRESENT ..
        COMPOSITION .... STEEL
         GENERATION DATA ...
                                        QUANTITY (LBS)
                 EXPT. TOTAL
                                          2.79
                DAILY RATE
                                          0.03
                  BATCH SIZE
                                           0.00
        RECLAMATION ACTION .. WASH
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S/C SUBSYSTEM .... INVERTEBRATES EXPERIMENT
   3POUP KEY .... 3.4.2
** EDUIPMENT/EXPERIMENT NO. 1 .....THE INVERTEBRATE ORGANISM AND IT
                                  S LIFE CYCLE
**** WASTE SOURCE NO. I ... THE INVERTERRATE ORGANISMS AND ITS LIFE
                           CYCLF
*メッチィス WASTE ITEV NJ。 5 .... BRUSH
         STATE ..... SOLID METAL
         DENSITY ..... 490.00 LBS/CU. FT.
         ATTRIBUTES ..... ORCANIC CONTAMINATED
         ELEMENTS PRESENT ..
         CCMPOSITION ..... SIEEL, CAMEL HAIR
         GENERATION DATA ...
                                        QUANTITY (LBS)
                  EXPT. TOTAL
                                           2.79
                  DAILY RATE
                                           0.03
                  BATCH SIZE
                                           0.00
         RECLAMATION ACTION .. WASH
**** WASTE ITEM NO. 7 .... BOTTLE WITH ANAESTHESIZING AGENT
         STATE ..... SOLID
         DENSITY ..... 52.87 LBS/CU. FT.
         ATTRIBUTES ..... GLASS, LIQUID, DANGEPCUS
         FLEMENTS PRESENT ..
         CGMPOSITION ..... ANAESTHETIC, BOROSILICATES
         GENERATION DATA ...
                                        QUANTITY (LBS)
                  EXPT. TOTAL
                                           0.24
                  DAILY RATE
                                           00.00
                  BATCH SIZE
                                           0.04
        RECLAMATION ACTION .. NONE
**** WASTE ITEM NO. 8 .... ANAFSTHESIZING CHAMBER
         STATE ..... SOLID
         DENSITY ..... 6.70 LBS/CU. FT.
         ATTRIBUTES ..... PLASTIC, CONTAMINATED
         ELFMENTS PRESENT ..
         CCMPOSITION ..... POLYSTYRENE
         GENERATION DATA ...
                                        QUANTITY (LAS)
                  EXPT. TOTAL
                                          18.00
                  DAILY RATE
                                          0.20
                  BATCH SIZE
                                           0.00
         RECLAMATION ACTION .. WASH
```

S/C SUBSYSTEM INVERTEBRATES EXPERIMENT SROUP KEY 3.4.2

** EQUIPMENT/EXPERIMENT NO. 1THE INVERTEBRATE ORGANISM AND IT S LIFE CYCLE

**** WASTE SOURCE NO. 1 THE INVERTEBRATE ORGANISMS AND ITS LIFE CYCLE

****** WASTE ITEM NO. 9 DEFECTIVE MICROSCOPE LAMP

STATE SCLID

DENSITY 13.82 LBS/CU. FT. ATTRIBUTES GLASS, DEFECTIVE

ELEMENTS PRESENT ..

COMPOSITION BOROSILICATES

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.06
DAILY RATE 0.00
BATCH SIZE 0.02

RECLAMATION ACTION .. NONE

**** WASTE ITEM NO. 10 PACKAGING MATERIAL

STATE SQLID

DENSITY C.OS LBS/CU. FT.

ATTRIBUTES PLASTIC, PAPER CONTAMINATED

ELEMENTS PRESENT ...

COMPOSITION POLYETHYLENE, CELLULOSE

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.75
DAILY RATE 0.00
BATCH SIZE 0.25

RECLAMATION ACTION .. REUSE AS

**** WASTE ITEM NO. 11 FECES

STATE SOLID

DENSITY 0.00 LBS/CU. FT.

ATTRIBUTES ORGANIC, CONTAMINATED

ELEMENTS PRESENT ..

COMPOSITION ORGANIC

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.00
DAILY RATE 0.00
BATCH SIZE 0.00

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S/C SUBSYSTEM .... INVERTEBRATES EXPERIMENT SROUP KEY .... 3.4.2
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** EQUIPMENT/EXPERIMENT NO. 1THE INVERTEBRATE ORGANISM AND IT S LIFE CYCLE

*** WASTE SOURCE NO. 1 THE INVERTEBRATE ORGANISMS AND ITS LIFE CYCLE

***** WASTE ITEM NO. 12 WATER

STATE LIQUID

DENSITY C.OO LBS/CU. FT.

ATTRIBUTES

ELEMENTS PRESENT .. HO

COMPOSITION HYDROGEN, OXYGEN

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.00
DAILY RATE 0.00
BATCH SIZE 0.00

S/C SUBSYSTEM INVERTEBRATES EXPERIMENT GROUP KEY 3.4.2

** EQUIPMENT/EXPERIMENT NO. 2 THE ROLE OF GRAVITY IN MORPHOGEN ESIS

ASSOCIATED FPE NUMBER ... 5.26
S/C AREAS BIC-LABORATORY

**** WASTE SOURCE NO. 1 ... THE ROLE OF GRAVITY IN MORPHOGENESIS

DOCUMENT NO. 3.4.2.2.1*

REFERENCE NO. 1 .. EXPERIMENT PROGRAM FOR EXTENDED EARTH, OR BITAL MISSION REVISION DATED MAY 1969, N ASA OFFICE MANNED SPACE

REFERENCE NO. 2 .. CULTURE METHODS IN INVERTEBRATE ANIMALS
1937 GALTSOFF, PAUL S. LUTZ, FRANK E.
WELCH, PAUL S. NEEDHAM, JAMES G. COMST
OCK PUBLISHING CO.

REFERENCE NO. 3 .. EFFECT ON A FLOOR BEETLE OF IRRIDATION D
URING SPACE FLIGHT, JUNE 1908, SLATER, J
OHN V. BUCKHOLD, BRENDA TOBIAS, C.A.
BIOSCIENCE VOLUME 18, NO.6 595-597

**** WASTE ITEM NO. 1 WIRE MESH SIFTER

STATE SOLID

DENSITY 100.00 LBS/CU. FT. ATTRIBUTES METAL, CONTAMINATED

_ELEMENTS PRESENT ..

COMPOSITION STEEL

GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 10.80
DAILY RATE 0.12
BATCH SIZE 0.00

RECLAMATION ACTION .. WASH

***** WASTE ITEM NO. 2 BOTTLE

STATE SOLID

DENSITY 6.70 LBS/CU. FT. ATTRIBUTES PLASTIC, CONTAMINATED

ELEMENTS PRESENT ..

COMPOSITION POLYSTYRENE

GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 9.00
DAILY RATE 0.10
BATCH SIZE 0.00

RECLAMATION ACTION .. WASH

S/C SUBSYSTEM INVERTEBRATES EXPERIMENT 3ROUP KEY 3.4.2 ** EQUIPMENT/FXPERIMENT NO. 2THE ROLE OF GRAVITY IN MORPHOGEN ESIS **** WASTE SOURCE NO. 1 THE ROLE OF GRAVITY IN MCRPHOGENESIS **** WASTE ITEM NO. 3 SPATULA STATE SOLID DENSITY 20.00 LBS/CU. FT. ATTRIBUTES PLASTIC, CONTAMINATED ELEMENTS PRESENT .. COMPOSITION POLYSTYRENE GENERATION DATA ... QUANTITY (LBS) EXPT. TOTAL 0.90 DAILY RATE 0.01 BATCH SIZE 0.00 RECLAMATION ACTION .. WASH **** WASTE ITEM NO. -4 BRUSH STATE SOLID DENSITY 49C.00 L8S/CU. FT. ATTRIBUTES METAL, CAMELS HAIR ELEMENTS PRESENT .. COMPOSITION STEEL, CAMELS HAIR GENERATION DATA ... QUANTITY (LBS) EXPT. TOTAL 2.79 DAILY RATE 0.03 BATCH SIZE 0.00 RECLAMATION ACTION .. WASH **** WASTE ITEM NO. 5 FORCEPS STATE SOLID DENSITY 490.00 LBS/CU. FT. ATTRIBUTES METAL CONTAMINATED ELEMENTS PRESENT .. COMPOSITION STEEL GENERATION DATA ... QUANTITY (LBS) EXPT. TOTAL DAILY RATE 6.30 0.07 BATCH SIZE 0.00 RECLAMATION ACTION .. LASH

```
S/C SUBSYSTEM .... INVERTEBRATES EXPERIMENT
   GROUP KEY ..... 3.4.2
** EQUIPMENT/EXPERIMENT NO. 2 .....THE ROLE OF GRAVITY IN MGRPHOGEN
                                  ESIS
**** WASTE SOURCE NO. 1 .... THE ROLE OF GRAVITY IN MORPHOGENESIS
**** WASTE ITEM NO. 6 ... PACKAGING MATERIALS
         STATE ..... SOLID
         DENSITY ..... 0.08 LBS/CU. FT.
         ATTRIBUTES ..... PAPER, PLASTIC
         ELEMENTS PRESENT ..
         COMPOSITION ..... CELLULOSE, POLYETHYLENE
         GENERATION DATA ...
                                        QUANTITY (LBS)
                 EXPT. TOTAL
                                           1.50
                  DAILY RATE
                                           0.00
                  BATCH SIZE
                                           0.25
         RECLAMATION ACTION .. REUSE AS IS
***** WASTE ITEM NO. 7 .... CARBON DIOXIDE
         STATE ..... GAS
         DENSITY ..... 0.00 LBS/CU. FT.
         ATTRIBUTES ..... STABLE, DANGEROUS
         FLEMENTS PRESENT .. CO
         COMPOSITION ..... CARBON, OXYGEN
         GENERATION DATA ...
                                        QUANTITY (LBS)
                  EXPT. TOTAL
                                           0.00
                  DAILY RATE
                                           0.00
                  BATCH SIZE
                                           0.00
         RECLAMATION ACTION .. REDUCE
**** WASTE ITEM NO. 8 .... WATER
         STATE ..... LIQUID
         DENSITY ..... C.OO LBS/CU. FT.
         ATTRIBUTES ..... MIXTURE, EXPIRED
         ELEMENTS PRESENT .. HO
         COMPOSITION ..... HYDROGEN, OXYGEN
         GENERATION DATA ...
                                        QUANTITY (LBS)
                  EXPT. TOTAL
                                           0.00
                  DAILY RATE
                                           0.00
                  BATCH SIZE
                                           0.00
         RECLAMATION ACTION .. NONE
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S/C SURSYSTEM INVERTEBRATES FXPERIMENT FROUP, KEY 3.4.2

*** NASTE SOURCE NO. 1 THE RCLE OF GRAVITY IN MCRPHCGENESIS

**** WASTE ITEM NO. 9 FECES

STATE SOLID

DENSITY G.OO LBS/CU. FT.

ATTRIBUTES ORGANIC, CUNTAMINATED

ELEMENTS PRESENT ..

COMPOSITION CRGANIC

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.00 DAILY RATE 0.00 BATCH SIZE 0.00

S/C SUBSYSTEM INVERTEBRATES EXPERIMENT

** EQUIPMENT/EXPERIMENT NO. 3 THE ROLE OF GRAVITY IN INVERTEBR ATE METABOLISM

ASSOCIATED FPE NUMBER ... 5.26 S/C AREAS BIG-LABORATORY S/C SUBSYSTEM INVFRTEBRATES EXPERIMENT SROUP KEY 3.4.2

** EQUIPMENT/FXPERIMENT NO. 4 THE ROLL OF GRAVITY IN AGING IN INVERTEBRATES

ASSOCIATED FPE NUMBER ... 5.26
S/C AREAS BIG-LABORATORY

**** WASTE SOURCE NO. 1 THE ROLL OF GRAVITY IN AGING IN INVERTEB

DOCUMENT NO. 3.4.2.4.1

REFERENCE NO. 1 .. EXPERIMENT PROGRAM FOR EXTENDED EARTH OR BITAL MISSION REVISED DATED MAY 1969, NA SA OFFICE OF MANNED SPACE FLIGHT.

REFERENCE NO. 2 .. CULTURF MFTHODS IN INVERTEBRATE ANIMALS 1937, GALTSOFF, PAUL S. LUTZ, FRANK E. WELCH, PAUL S. NEEDHAM, JAMES G.

**** WASTE ITEM NO. 1 CARBON DIOXIDE

STATE GAS

DENSITY 0.00 LBS/CU. FT.

ATTRIBUTES STABLE, DANGEROUS

ELEMENTS PRESENT ..

COMPOSITION CARBON, OXYGEN

GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.00

DAILY RATE 0.00
BATCH SIZE 0.00

RECLAMATION ACTION .. REDUCE

**** * WASTE ITEM NO. 2 FECES

STATE SOLID

DENSITY C.00 LBS/CU. FT.

ATTRIBUTES ORGANIC, CONTAMINATED

ELEMENTS PRESENT ...

COMPOSITION CRGANIC

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.00
DAILY RATE 0.00
BATCH SIZE 0.00

S/C SUBSYSTEM INVERTEBRATES EXPERIMENT 3ROUP KEY 3.4.2 ** EQUIPMENT/EXPERIMENT NO. 4THE ROLL OF GRAVITY IN AGING IN INVERTEBRATES **** WASTE SCURCE NO.] THE ROLL OF GRAVITY IN AGING IN INVERTEB RATES **** WASTE ITEM NO. 3 WATER STATE LIQUID DENSITY C.OO LBS/CU. FT. ATTRIBUTES MIXTURE, EXPIRED ELEMENTS PRESENT .. HO COMPOSITION HYDROGEN, OXYGEN GENERATION DATA ... QUANTITY (LBS) EXPT. TOTAL 0.00 DAILY RATE 0.00 BATCH SIZE 0.00 RECLAMATION ACTION .. NONE ***** WASTE ITEM NO. 4 DROPPING BOTTLE WITH MILK AND WATER STATE SOLID SUSPENSION DENSITY 83.37 LBS/CU. FT. ATTRIBUTES GLASS ELEMENTS PRESENT .. COMPOSITION ORGANIC, BOROSILICATES GENERATION DATA ... QUANTITY (LBS) EXPT. TOTAL 0.72 DAILY RATE 0.00 BATCH SIZE 0.06 RECLAMATION ACTION .. NONE **** WASTE ITEM NO. 5 ... ANAESTHESIZING CHAMBER STATE SOLID DENSITY 6.70 LBS/CU. FT. ATTRIBUTES PLASTIC ELEMENTS PRESENT .. COMPOSITION POLYSTYRENE GENERATION DATA ... QUANTITY (LBS) EXPT. TOTAL 18.00 DAILY RATE 0.20 BATCH SIZE 0.00 RECLAMATION ACTION .. WASH

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S/C SUBSYSTEM .... INVERTEBRATES EXPERIMENT
    JROUP KEY .... 3.4.2
** EQUIPMENT/EXPERIMENT NO. 4 .....THE ROLL OF GRAVITY IN AGING IN
                                  INVFRTEBRATES
*** WASTE SOURCE NO. 1 .... THE ROLL OF GRAVITY IN AGING IN INVERTEB
                           RATES
*** WASTE ITEM NO. 6 ... WIRE MESH CAGE
         STATE ..... SOLID
         DENSITY ..... 100.00 LBS/CU. FT.
         ATTRIBUTES ..... METAL
         ELEMENTS PRESENT ..
         COMPOSITION ..... STEEL
                                         QUANTITY (LBS)
         GENERATION DATA ...
                  EXPT. TOTAL
                                           1.50
                  DAILY RATE
                                           0.00
                  BATCH SIZE
                                           1.50
         RECLAMATION ACTION .. WASH
**** WASTE ITEM NO. 7 .... WATCH GLASS
         STATE ..... SOLID
         DENSITY ..... 5.16 LBS/CU. FT.
         ATTRIBUTES ..... GLASS
         FLEMENTS PRESENT ..
         CCMPOSITION ..... BOROSILICATES
                                         QUANTITY (LBS)
         GENERATION DATA ...
                  EXPT. TOTAL
                                           9.00
                  DAILY RATE
                                           0.10
                  BATCH SIZE
                                           0.00
         RECLAMATION ACTION .. WASH
***** WASTE ITEM NO. 8 .... COUNTING PLATE
         STATE ..... SOLID
         DENSITY ..... 42.17 LBS/CU. FT.
         ATTRIBUTES ..... GLASS, CONTAMINATED
         ELEMENTS PRESENT ..
         COMPOSITION ..... BORDSILICATES
                                         QUANTITY (LBS)
         GENERATION DATA ...
                  EXPT. TOTAL
                                           9.00
```

0.10

0.00

DAILY RATE

BATCH SIZE

RECLAMATION ACTION .. WASH

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S/C SUBSYSTEM .... INVERTEBRATES EXPERIMENT
   GROUP KEY .... 3.4.2
** EQUIPMENT/EXPERIMENT NO. 4 .....THE ROLL OF GRAVITY IN AGING IN
                                  INVERTEBRATES
**** WASTE SOURCE NO. 1 .... THE ROLL OF GRAVITY IN AGING IN INVERTEB
                           RATES
**** WASTE ITEM NO. 9 .... FORCEPS
         STATE ..... SOLID
         DENSITY ..... 490.00 LBS/CU. FT.
         ATTRIBUTES ..... METAL, CONTAMINATED
         ELEMENTS PRESENT ..
         COMPOSITION ..... STEEL
         GENERATION DATA ...
                                        QUANTITY (LBS)
                  EXPT. TOTAL
                                          6.30
                                           0.07
                  DATLY RATE
                  BATCH SIZE
                                          0.00
         RECLAMATION ACTION .. KASH
***** WASTE ITEM NO. 10 .... BRUSH
         STATE ..... SOLID
         DENSITY ..... 490.00 LBS/CU. FT.
         ATTRIBUTES ..... METAL, ORGANIC, CONTAMINATED
         ELEMENTS PRESENT ..
         COMPOSITION ..... STEEL, CAMELS HAIR
         GENERATION DATA ...
                                        QUANTITY (LBS)
                  EXPT. TOTAL
                                           2.79
                  DAILY RATE
                                           0.03
                  BATCH SIZE
                                           0.00
         RECLAMATION ACTION .. WASH
***** WASTE ITEM NO. 11 .... COTTEN PLUG, GAUZE
         STATE ..... SOLID
         DENSITY ...... 13.77 LBS/CU. FT.
         ATTRIBUTES ..... TEXTILE, CONTAMINATED
         ELEMENTS PRESENT ...
         COMPOSITION ..... CELLULOSE
                                         QUANTITY (LBS)
         GENERATION DATA ...
                  EXPT. TOTAL
                                          1.44
                                           0.16
                  DAILY RATE
                  BATCH SIZE
                                           0.00
         RECLAMATION ACTION .. NONE
```

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NUN NUS 19 2
```

S/C SUBSYSTEM INVERTEBRATES EXPERIMENT SROUP KEY 3.4.2

** EQUIPMENT/EXPERIMENT NO. 4THE ROLL OF GRAVITY IN AGING IN INVERTEBRATES

**** WASTE SOURCE NO. 1 THE ROLL OF GRAVITY IN AGING IN INVERTEB

**** WASTE ITEM NJ. 12 PACKAGING MATERIAL

STATE SCLID

DENSITY C.08 LBS/CU. FT.

ATTRIBUTES PLASTIC, PAPER, CONTAMINATED

ELEMENTS PRESENT ..

CCMPOSITION POLYFTHYLENE, CELIULCSE

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 3.00
DAILY RATE 0.00
BATCH SI7E 0.25

RECLAMATION ACTION .. REUSE AS IS

S/C SUBSYSTEM INVERTEBRATES EXPERIMENT FROUP KEY 3.4.2

** FOULPMENT/EXPERIMENT NO. 5 GENETIC PHENOMINA IN INVERTEBRATES

ASSOCIATED FOR NUMBER 5.26

ASSOCIATED FPE NUMBER ... 5.26 S/C AREAS BIC-LABORATORY

*** WASTE SOURCE NO. 1 ... MUTABILITY IN ADULT DROSOPHILA

DOCUMENT NO. 3.4.2.5.1

PFFERENCE NO. 1 .. EXPERIMENT PROGRAM FOR EXTENDE EARTH ORB ITAL MISSION REVISION DATED MAY 1969, N ASA OFFICE OF MANNED SPACE FLIGHT.

REFERENCE NO. 2 .. CULTURE METHODS FOR INVERTEBRATE ANIMALS
1937, GALSTOFF, PAUL S., LUTZ, FRANK E.,
WELCH, PAUL S., NEEDHAM, JAMES G., COMST
CCK PUBLISHING COMPANY

S/C SUBSYSTEM INVERTEBRATES EXPERIMENT SROUP KEY 3.4.2

** EQUIPMENT/EXPERIMENT NO. 5GFNETIC PHENOMINA IN INVERTEBRAT

**** WASTE SOURCE NO. 2 RADIATION REPAIR MECHANISMS IN CHRCHOSTY
ES

DOCUMENT NO. 3.4.2.5.2

REFERENCE NO. 1 .. EXPERIMENT PROGRAM FOR EXTENDED EARTH OR BITAL MISSION PEVISION DATED MAY 1969, NASA OFFICE OF MANNEC SPACE FLIGHT

REFERENCE NO. 2 .. CULTURE METHODS FOR INVEPTEBRATE ANIMALS 1937. GALTSOFF, PAUL S. LUTZ, FRANK E. WELCH, PAUL S. NEEDHAM, JAMES C. COMSTOCK PUBLISHING CO.

**** WASTE ITEM NO. 1 VIALS STATE SOLID

DENSITY 51.84 LBS/CU. FT. ATTRIBUTES GLASS, CONTAMINATED

ELEMENTS PRESENT ..

COMPOSITION BOROSILICATES

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 54.00
DAILY RATE 0.60
BATCH SIZE 0.00

RECLAMATION ACTION .. WASH

**** WASTE ITEM NO. 2 ... COTTEN PLUGS

STATE SOLID

DENSITY 13.77 LBS/CU. FT.

ATTRIBUTES TEXTILE, CONTAINATED

CLEMENTS PRESENT ..

COMPOSITION CELLULOSE

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 14.40
DAILY RATE 0.16
BATCH SIZE 0.00

```
S/C SUBSYSTEM .... INVERTEBRATES EXPERIMENT
   GROUP KEY .... 3.4.2
** EQUIPMENT/EXPERIMENT NO. 5 .....GENETIC PHENCMINA IN INVERTEBRAT
                                  ES
**** WASTE SOURCE NO. 2 .... RADIATION REPAIR MECHANISMS IN CHROMOSOM
                           ES
***** WASTE ITEM NO. 3 ... HONEY, DROPPING BOTTLE
         STATE ..... SOLID
         DENSITY ..... 52.87 LBS/CU. FT.
         ATTRIBUTES ..... CRGANIC CONTAMINATED
         ELEMENTS PRESENT ..
         COMPOSITION ..... ORCANIC, BOROSILICATES
         GENERATION DATA ...
                                         QUANTITY (LBS)
                  EXPT. TOTAL
                                           0.48
                                           0.00
                  DAILY RATE
                  BATCH SIZE
                                           0.04
         RECLAMATION ACTION .. NONE
***** WASTE ITEM NO. 4 .... FORCEPS
         STATE ..... SOLID
         DENSITY ..... 490.00 LBS/CU. FT.
         ATTRIBUTES ..... STEEL, CONTAMINATED
         ELEMENTS PRESENT ..
         COMPOSITION ..... STEEL
                                         QUANTITY (LBS)
         GENERATION DATA ...
                  EXPT. TOTAL
                                           6.38
                  DAILY RATE
                                           0.07
                  BATCH SIZE
                                           0.00
        RECLAMATION ACTION .. WASH
**** WASTE ITEM NO. 5 .... ANAESTHESIZING AGENT, DROPPING BO
         STATE ..... SOLID
         DENSITY ..... 52.87 LBS/CU. FT.
         ATTRIBUTES ..... GLASS, LIQUID, DANGEROUS
         ELEMENTS PRESENT ...
         COMPOSITION ..... ANAESTHETIC, BOROSILICATES
         GENERATION DATA ...
                                         QUANTITY (LBS)
                  EXPT. TOTAL
                                           0.48
                  DAILY RATE
                                           0.00
                  BATCH SIZE
                                           0.04
         RECLAMATION ACTION .. NONE
```

S/C SUBSYSTEM INVERTEBRATES EXPERIMENT FROUP KEY 3.4.2

** E JUIPMENT/EXPERIMENT NO. 5GENETIC PHENOMINA IN INVERTEBRAT

**** WASTE SOURCE NO. 2 RADIATION REPAIR MECHANISMS IN CHRCMOSOM ES

+*** WASTE ITEM NO. 6 ... ANAESTHESIZING CHAMBER

STATE SOLID

DENSITY £.70 LBS/CU. FT.
ATTRIBUTES PLASTIC, CONTAMINATED

ELEMENTS PRESENT ..

COMPOSITION POLYSTYRENE

GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 18.00

DATLY RATE 0.20 BATCH SIZE 0.00

RECLAMATION ACTION .. NASH

***** WASTE ITEM NO. 7 PACKAGING MATERIAL

STATE SOLID

DENSITY C.OB LBS/CU. FT.

ATTRIBUTES PLASTIC, PAPER

ELEMENTS PRESENT ..

COMPOSITION POLYETHYLENF, CELLULOSE

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 3.00
DAILY RATE 0.00
BATCH SIZE 0.25

RECLAMATION ACTION .. REUSE AS IS

**** WASTE ITEM NO. 8 BRUSH

STATE SOLID

DENSITY 490.00 LBS/CU. FT.

ATTRIBUTES METAL, ORGANIC, CONTAMINATED

ELEMENTS PRESENT ...

COMPOSITION STEEL, CAMEL HAIR

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 2.79
DAILY RATE 0.03
BATCH SIZE 0.00

```
S/C SUBSYSTEM .... INVERTEBRATES EXPERIMENT
   GROUP KEY .... 3.4.2
** E)UIPMENT/EXPERIMENT NO. 5 .....GENETIC PHENOMINA IN INVERTEBRAT
                                  ES
**** WASTE SOURCE NO. 2 .... RACIATION REPAIR MECHANISMS IN CHROMOSOM
                           ES
**** WASTE ITEM NO. 9 ... WATCH GLASS
         STATE ..... SOLID
         DENSITY ..... 5.16 LBS/CU. FT.
         ATTRIBUTES ..... GLASS, CONTAMINATED
         ELEMENTS PRESENT ...
         COMPOSITION ..... BORDSILICATES
         GENERATION DATA ...
                                        QUANTITY (LBS)
                  EXPT. TOTAL
                                           9.00
                  DAILY RATE
                                           0.10
                  BATCH SIZE
                                           0.00
         RECLAMATION ACTION ...
***** WASTE ITEM NO. 10 .... WIRE MESH CAGE
         STATE ..... SOLID
         DENSITY ..... 490.00 LBS/CU. FT.
         ATTRIBUTES ..... METAL, CONTAMINATED
         ELEMENTS PRESENT ..
         COMPOSITION ..... STEEL
                                        QUANTITY (LBS)
         GENERATION DATA ...
                  EXPT. TOTAL
                                          1.50
                  DAILY RATE
                                           0.00
                  BATCH SIZE
                                           1.50
         RECLAMATION ACTION .. WASH
***** WASTE ITEM NO. 11 .... GAS
         STATE ..... GAS
         DENSITY ..... 0.00 LBS/CU. FT.
         ATTRIBUTES ..... STABLE, DANGEROUS
         ELEMENTS PRESENT .. HO
         COMPOSITION ..... CARBON, OXYGEN
         GENERATION DATA ...
                                        QUANTITY (LBS)
                  EXPT. TOTAL
                                           0.00
                  DAILY RATE
                                           0.00
                  BATCH SIZE
                                           0.00
         RECLAMATION ACTION .. REDUCE
```

```
S/C SUBSYSTEM .... INVERTEBRATES EXPERIMENT
   JROUP KEY .... 3.4.2
** E)UIPMENT/EXPERIMENT NO. 5 ......GENETIC PHENCMINA IN INVERTEDRAT
                                 ES
*** WASTE SOURCE NO. 2 .... RADIATION REPAIR MECHANISMS IN CHROMOSOM
                          ES
**** WASTE ITEM NO. 12 .... WATER
        STATE ..... LIQUID
        DENSITY ..... C.OO LBS/CU. FT.
        ATTRIBUTES ..... PIXTURE, EXPIRED
        ELEMENTS PRESENT .. HO
        COMPOSITION ..... HYDROGEN, OXYGEN
        GENERATION DATA ...
                                       QUANTITY (LBS)
                 EXPT. TOTAL
                                          0.00
                 DATLY RATE
                                          0.00
                 BATCH SIZE
                                          0.00
        RECLAMATION ACTION .. NONE
***** WASTE ITEM NO. 13 .... FECES
        STATE ..... SOLID
        DENSITY ..... G.OO LBS/CU. FT.
        ATTRIBUTES ..... ORCANIC, CONTAMINATED
        ELEMENTS PRESENT ..
        COMPOSITION ..... ORGANIC
        GENERATION DATA ...
                                       QUANTITY (LBS)
                 EXPT. TOTAL
                                          0.00
                 DAILY RATE
                                          0.00
                 BATCH SIZE
                                         0.00
       _ RECLAMATION ACTION .. NONE
```

S/C SUBSYSTEM INVERTEBRATES EXPERIMENT SROUP KEY 3.4.2

** EJUIPMENT/EXPERIMENT NO. 6 BIORYTHMICITY IN INVERTEBRATES

ASSOCIATED FPE NUMBER ... 5.26
S/C AREAS BIC-LABORATORY

**** WASTE SOURCE NO. 1 CIRCADIAN RYTHMS IN INVERTEBRATES

DCCUMENT NO. 3.4.2.6.1

REFERENCE NU. 1 .. EXPERIMENT PROGRAM FOR EXTENDED EARTH OB ITAL MISSICN REVISION DATED MAY 1969, N ASA OFFICE OF MANNED SPACE FLIGHT

REFERENCE NO. 2 .. CULTURE METHODS FOR INVERTEBPATE ANIMALS

1937, GALTSOFF, PAUL S. LUTZ, FRANK E. W
ELCH, PAUL S. NEEDHAM, JAMES G. COMST
GCK PUBLISHING CO.

**** WASTE ITEM NO. 1 BELL JAR

STATE SOLID

DENSITY 8.00 LBS/CU. FT. ATTRIBUTES PLASTIC, CONTAMINATED

ELEMENTS PRESENT ..

COMPOSITION POLYSTYRENE

GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL
DATLY RATE
DATCH SIZE
QUANTITY (LBS)
1.20
0.00
0.40

RECLAMATION ACTION .. WASH

**** ** WASTE ITEM NO. 2 WATER

STATE LIQUID

DENSITY 62.00 LBS/CU. FT. ATTRIBUTES MIXTURE, EXPIRED

ELEMENTS PRESENT .. HO

COMPOSITION HYDROGEN, OXYGEN

GENFRATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 1.98

DAILY RATE 0.02
BATCH SIZE 0.00

RECLAMATION ACTION .. NONE

```
S/C SUBSYSTEM .... INVERTEBRATES EXPEPIMENT
   GROUP KEY .... 3.4.2
** EQUIPMENT/EXPERIMENT NO. 6 .....BIORYTHMICITY IN INVERTERRATES
**** WASTE SOLRCE NO. 1 .... CIRCADIAN RYTHMS IN INVEPTEBRATES
*** + * WASTE ITEM NO. 3 .... WIRE MESH
         STATE ..... SOLID
         DENSITY ..... 10C.00 LBS/CU. FT.
         ATTRIBUTES ..... METAL, CONTAMINATED
         ELEMENTS PRESENT ...
         COMPOSITION ..... STEEL
                                        QUANTITY (LBS)
         GENERATION DATA ...
                  EXPT. TOTAL
                                          0.36
                  DAILY RATE
                                           0.00
                  BATCH SIZE
                                           0.12
         RECLAMATION ACTION .. WASH
***** WASTE ITEM NO. 4 .... CHEESE CLOTH
         STATE ..... SOLID
         DENSITY ...... 13.77 LBS/CU. FT.
         ATTRIBUTES ..... TEXTILE, CONTAMINATED
         ELEMENTS PRESENT ..
         CCMPOSITION ..... CELLULOSE
         GENERATION DATA ...
                                        QUANTITY (LBS)
                  EXPT. TOTAL
                                           0.03
                  DAILY RATE
                                           0.00
                                           0.01
                  BATCH SIZE
         RECLAMATION ACTION .. NONE
**** WASTE ITEN NO. 5 ... NATCH GLASS
         STATE ..... SOLID
         DENSITY ..... 5.16 LBS/CU. FT.
         ATTRIBUTES ...... GLASS, CONTAMINATED
         ELEMENTS PRESENT ..
         COMPOSITION ..... BOROSTLICATES
                                        QUANTITY (LBS)
         GENERATION DATA ...
                  EXPT. TOTAL
                                           9.00
                  DAILY RATE
                                           0.10
                  BATCH SIZE
                                           0.00
         RECLAMATION ACTION .. WASH
```

```
S/C SUBSYSTEM .... INVERTEBRATES EXPERIMENT
   GROUP KEY .... 3.4.2
** EQUIPMENT/EXPERIMENT NO. 6 ......BIORYTHMICITY IN INVERTERRATES
*** WASTE SOURCE NO. 1 .... CIRCADIAN RYTHMS IN INVERTEBRATES
***** WASTE ITEM NO. 6 .... FORCEPS
         STATE ..... SCLID
        DENSITY ..... 490.00 LBS/CU. FT.
        ATTRIBUTES .... METAL, CONTAMINATED
        ELEMENTS PRESENT ..
        CCMPCSITION .... STEEL
         GENERATION DATA ...
                                        QUANTITY (LBS)
                 EXPT. TOTAL
                                          6.30
                 DAILY RATE
                                          0.07
                 BATCH SIZE
                                          0.00
        RECLAMATION ACTION .. WASH
**** WASTE ITEM NO. 7 .... BRUSH
        STATE ...... SOLID
        DENSITY ..... 490.00 LBS/CU. FT.
        ATTRIBUTES ..... METAL, CAPELS HAIR
        ELEMENTS PRESENT ..
        CCMPOSITION ..... STEEL, CAMELS HAIR
        GENERATION DATA ...
                                       QUANTITY (LBS)
                 EXPT. TOTAL
                                          2.79
                 DAILY RATE
                                          0.03
                 BATCH SIZE
                                          0.00
        RECLAMATION ACTION .. WASH
**** ** WASTE ITEM NO. 8 .... CARBON DICXIDE
        STATE .... GAS
        DENSITY ..... C.DO LBS/CU. Fl.
        ATTRIBUTES ..... STABLE, PANGEROUS FUMES
        ELEMENTS PRESENT .. CC2
        COMPOSITION ..... CARBON AND OXYGEN
        GENERATION DATA ...
                                        QUANTITY (LBS)
                 EXPT. TOTAL
                                          0.00
                 DAILY RATE
                                          0.00
                 BATCH SIZE
                                          0.00
        RECLAMATION .. REDUCE
```

S/C SUBSYSTEM INVERTEBRATES EXPERIMENT GROUP KEY 3.4.2

**** WASTE ITEM NO. 9 FECES

STATE SOLID

DENSITY C.OO LBS/CU. FT. ATTPIBUTES ORGANIC, CONTAMINATED

ELEMENTS PRESENT ..

COMPOSITION ORGANIC

GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.00
DAILY RATE 0.00
BATCH SIZE 0.00

RECLAMATION ACTION .. NONE

/ **** WASTE ITEM NO. 10 PACKAGING MATERIAL

STATE SOLID

DFNSITY 0.00 LRS/CU. FT.

ATTRIBUTES PAPER, PLASTIC, CONTAMINATED

ELEMENTS PRESENT ...

COMPOSITION CELLULOSE, POLYETHYLENE

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.90
DAILY RATE 0.01
BATCH SIZE 0.00

RECLAMATION .. REUSE AS IS

S/C SUBSYSTEM INVERTEBRATES EXPERIMENT GROUP KEY 3.4.2

**** WASTE SOURCE NO. 2 BICRYTHMICITY IN FIDDLER CRABS

DOCUMENT NO. 3.4.2.6.2

REFERENCE NO. 1 .. EXPERIMENT PROGRAM FOR EXTENTED EARTH OR
BITAL MISSION PEVISION DATED MAY 1969, N
ASA OFFICE OF MANNED SPACE FLIGHT

REFERENCE NO. 2 .. CULTURE METHODS IN INVERTEBRATE ANIMALS
1937; GALTSTAFF, PAUL S. LUTZ, FRANK E.
WELCH, PAUL S. NEEDHAM, JAMES G. COMST
OCK PUBLISHING CO.

**** WASTE ITEM NO. 1 AQUARIUM TANK

STATE SOLID

DENSITY 10.45 LBS/CU. FT. ATTRIBUTES GLASS, CONTAMINATED

ELEMENTS PRESENT ..

COMPOSITION BOROSILICATES

GENERATION DATA ... -- QUANTITY (LBS)

EXPT. TOTAL 48.00 DAILY RATE 0.00 BATCH SIZE 16.00

RECLAMATION ACTION .. WASH

**** WASTE ITEM NO. 2 SAND, WET

STATE SOLID

DENSITY 120.00 LBS/CU. FT.

ATTRIBUTES SAND

ELEMENTS PRESENT ..

COMPOSITION SILICATES

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 6.00
DAILY RATE 0.00
BATCH SIZE 2.00

S/C SUBSYSTEM INVERTEBRATES EXPERIMENT GROUP KEY 3.4.2 ** EQUIPMENT/FXPERIMENT NO. 6BIORYTHMICITY IN INVERTEBRATES **** WASTE SOURCE NO. 2 ... BICRYTHMICITY IN FIDDLER CRABS **** WASTE ITEM NO. 3 WATER STATE LIGUID DENSITY 62.00 LBS/CU. FT. ATTRIBUTES MIXTURE, CONTAMINATED ELEMENTS PRESENT .. HO COMPOSITION HYDROGEN, DXYGEN GENERATION DATA ... QUANTITY (LBS) EXPT. TOTAL 5.40 DAILY RATE 0.00 BATCH SIZE 1.80 RECLAMATION ACTION .. STERILIZE **** WASTE ITEM NO. 4 ... AQUATIC PLANTS STATE SOLID DENSITY 15.00 LBS/CU. FT. ATTRIBUTES CRGANIC, CONTAMINATED ELEMENTS PRESENT .. COMPOSITION ORGANIC GENERATION DATA ... QUANTITY (LBS)

0.54

0.00

0.18

0.20

BATCH SIZE
RECLAMATION ACTION .. REUSE AS IS

EXPT. TOTAL

DAILY RATE

RECLAMATION ACTION .. WASH

BATCH SIZE

S/C SUBSYSTEM INVERTEBRATES EXPERIMENT GROUP KEY 3.4.2

****** WASTE ITEM NO. 6 YEAST AND DROPPING BOTTLE

STATE SOLID

DENSITY 52.87 LBS/CU. FT.

ATTRIBUTES GLASS AND DRGANIC CONTAMINATED

ELEMENTS PRESENT ..

COMPOSITION YEAST AND BOROSILICATES

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.12

DAILY RATE 0.00

DAILY RATE 0.00
BATCH SIZE 0.04
RECLAMATION ACTION .. MUST BE ACTIVATED

/ **** WASTE-ITEM NO. 7 PACKAGING MATERIAL

STATE SOLID

DENSITY 0.08 LBS/CU. FT.

ATTRIBUTES PLASTIC AND PAPER CONTAMINATED

ELEMENTS PRESENT ..

CCMPOSITION CELLULOSE AND POLYTHELENE

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.75
DAILY RATE 0.00
BATCH SIZE 0.25

RECLAMATION ACTION .. REUSE AS IS

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S/C SUBSYSTEM .... INVERTEBRATES EXPERIMENT
   GROUP KEY .... 3.4.2
** EQUIPMENT/EXPERIMENT NO. 7 ..... BEHAVIOR INFLUENCES IN INVERTEBR
                                  ATES
         ASSOCIATED FPE NUMBER ... 5.26
         S/C AREAS ..... BIO-LABORATORY
**** WASTE SOURCE NO. 1 .... BEHAVIOR INFLUENCES IN BEES
         DOCUMENT NO. ..... 3.4.2.7.1
         REFERENCE NO. 1 .. EXPERIMENT PROGRAM FOR EXTENDED EARTH OR
                           BITAL MISSION REVISION DATED MAY 1969, N
                           ASA OFFICE OF MANNED SPACE FLIGHT
         REFERENCE NO. 2 .. CULTURE METHODS FOR INVERTEBRATE ANIMALS
                            1937, GALTSOFF, PAUL S. LUTZ, FRANK E. W
                           ELCH, PAUL S. NEEHAM, JAMES G. COMST
                           OCK PUBLISHING CO.
***** WASTE ITEM NO. I .... VIALS
         STATE ..... SOLID
         DENSITY ..... 51.84 LBS/CU. FT.
         ATTRIBUTES ...... GLASS, CONTAMINATED
         ELEMENTS PRESENT ..
         COMPOSITION ..... BOROSILICATES
         GENERATION DATA ...
                                         QUANTITY (LBS)
                  EXPT. TOTAL
                                           54.00
                  DAILY RATE
                                            0.60
                  BATCH SIZE
                                            0.00
         RECLAMATION ACTION .. WASH
***** WASTE ITEM NO. 2 .... COTTON PLUGS
         STATE ..... SOLID
         DENSITY ...... 13.77 LBS/CU. FT.
         ATTRIBUTES ..... TEXTILE, CONTAMINATED
         ELEMENTS PRESENT ..
         COMPOSITION ..... CELLULOSE
         GENERATION DATA ...
                                         QUANTITY (LBS)
                  EXPT. TOTAL
                                           14.40
                  DAILY RATE
                                           0.16
                  BATCH SIZE
                                            0.00
```

RECLAMATION ACTION .. NONE

```
S/C SUBSYSTEM .... INVERTEBRATES EXPERIMENT
   GROUP KEY .... 3.4.2
** EQUIPMENT/EXPERIMENT NO. 7 .....BEHAVIOR INFLUENCES IN INVERTEBR
                                  ATES
**** WASTE SOURCE NO. 1 ... BEHAVIOR INFLUENCES IN BEES
**** WASTE ITEM NO. 3 .... LIQUID POLLEN, BOTTLE
         STATE ..... SOLID
         DENSITY ..... 52.87 LBS/CU. FT.
         ATTRIBUTES ..... ORGANIC, GLASS
         ELEMENTS PRESENT ..
         COMPOSITION ..... ORGANIC, BOROSILICATES
         GENERATION DATA ...
                                        QUANTITY (LES)
                  EXPT. TOTAL
                                          0.48
                  DAILY RATE
                                          0.00
                  BATCH SIZE
                                          0.04
         RECLAMATION ACTION .. WASH
**** WASTE ITEM NO. 4 ... ANAETHESIZING AGENT, BOTTLE
         STATE ..... SOLID
         DENSITY ..... 52.87 LBS/CU. FT.
         ATTRIBUTES ..... GLASS, LIQUID, DANGERCUS
         ELEMENTS PRESENT ..
         COMPOSITION ..... ANAESTHETIC, GLASS
         GENERATION DATA ...
                                        QUANTITY (LBS)
                  EXPT. TOTAL
                                           0.48
                  DAILY RATE
                                           0.00
                  BATCH SIZE
                                           0.04
         RECLAMATION ACTION .. NONE
***** WASTE ITEM NO. 5 ... ANAESTHESIZING CHAMBER
         STATE ..... SOLID
         DENSITY ..... 6.70 LBS/CU. FT.
         ATTRIBUTES ..... PLASTIC, CONTAMINATED
         ELEMENTS PRESENT ...
         COMPOSITION ..... POLYSTYRENE
         GENERATION DATA ...
                                        QUANTITY (LBS)
                  EXPT. TOTAL
                                         18.00
                  DAILY RATE
                                        0.20
                  BATCH SIZE
                                          0.00
```

S/C SUBSYSTEM INVERTEBRATES EXPERIMENT GROUP KEY 3.4.2 ** EQUIPMENT/EXPERIMENT NO. 7BEHAVIOR INFLUENCES IN INVERTEBR ATES *** WASTE SOURCE NO. 1 ... BEHAVIOR INFLUENCES IN BEES ***** WASTE ITEM NO. 6 FORCEPS STATE SGLID DENSITY 496.00 LBS/CU. FT. ATTRIBUTES METAL, CONTAMINATED ELEMENTS PRESENT .. COMPOSITION STEEL GENERATION DATA ... QUANTITY (LBS) EXPT. TOTAL 6.30 DAILY RATE 0.07 BATCH SIZE 0.00 RECLAMATION ACTION .. WASH ***** WASTE ITEM NO. 7 BRUSH STATE SOLID DENSITY 490.00 LBS/CU. FT. ATTRIBUTES METAL, CAMELS HAIR, CONTAMINATED **ELEMENTS PRESENT** ... COMPOSITION STEEL, CAMELS HAIR GENERATION DATA ... QUANTITY (LBS) EXPT. TOTAL 2.79 DAILY RATE 0.03 BATCH SIZE 0.00 RECLAMATION ACTION .. WASH **** WASTE ITEM NO. 8 WATCH GLASS STATE SOLID DENSITY 5.16 LBS/CU. FT. ATTRIBUTES GLASS, CONTAMINATED ELEMENTS PRESENT .. COMPOSITION BOROSILICATES GENERATION DATA ... QUANTITY (LBS) EXPT. TOTAL 9.00 DAILY RATE 0.10

0.00

BATCH SIZE

```
S/C SUBSYSTEM .... INVERTEBRATES EXPERIMENT
    GROUP KEY .... 3.4.2
** EQUIPMENT/EXPERIMENT NO. 7 ......BEHAVIOR INFLUENCES IN INVERTEBR
                                 ATES
**** WASTE SOURCE NC. 1 .... BEHAVIOR INFLUENCES IN BEES
***** WASTE ITEM NO. 9 .... WIRE CAGE
         STATE ..... SOLID
         DENSITY ..... 6.00 LBS/CU. FT.
         ATTRIBUTES ..... METAL CONTAMINATED
         ELEMENTS PRESENT ..
         COMPOSITION ..... STEEL
         GENERATION DATA ...
                                        QUANTITY (LBS)
                 EXPT. TOTAL
                                          1.50
                  DAILY RATE
                                           0.00
                  BATCH SIZE
                                           1.50
        RECLAMATION ACTION .. WASH
**** ** WASTE ITEM NO. 10 ... PACKAGING MATERIAL
         STATE ..... SOLID
         DENSITY ..... G.O8 LBS/CU. FT.
         ATTRIBUTES ..... PLASTIC, PAPER, CONTAMINATED
         ELEMENTS PRESENT ...
        COMPOSITION ..... CELLULOSE, POLYVINYL
         GENERATION DATA ...
                                        QUANTITY (LBS)
                  EXPT. TOTAL
                                           3.00
                  DAILY RATE
                                           0.00
                  BATCH SIZE
                                           0.25
         RECLAMATION ACTION .. REUSE AS IS
**** WASTE ITEM NO. 11 .... CARBON DIOXIDE
         STATE ..... GAS
         DENSITY ..... 0.00 LBS/CU. FT.
         ATTRIBUTES ..... STABLE, DANGERCUS
         FLEMENTS PRESENT .. CO2
         COMPOSITION ..... CARBON, DXYGEN
         GENERATION DATA ...
                                        QUANTITY (LBS)
                  EXPT. TOTAL
                                           0.00
                  DAILY RATE
                                           0.00
                  BATCH SIZE
                                           0.00
        RECLAMATION ACTION .. REDUCE
```

S/C SUBSYSTEM INVERTEBRATES EXPERIMENT GROUP KEY 3,4.2 ** EQUIPMENT/EXPERIMENT NO. 7BEHAVIOR INFLUENCES IN INVERTEBR ATES **** WASTE SOURCE NO. 1 BEHAVIOR INFLUENCES IN BEES ***** WASTE ITEM NO. 12 WATER STATE LIGUID DENSITY 0.00 LBS/CU. FT. ATTRIBUTES EXPIRED DRGANIC ELEMENTS PRESENT .. H2C.H COMPOSITION WATER HYDROGEN GENERATION DATA ... QUANTITY (LBS) EXPT. TOTAL 0.00 DAILY RATE 0.00 BATCH SIZE 0.00 RECLAMATION ACTION .. NONE ***** WASTE ITEM NO. 13 FECES STATE SOLID DENSITY O.OO LBS/CU. FT. ATTRIBUTES ORGANIC, CCNTAMINATED ELEMENTS PRESENT .. COMPOSITION ORGANIC GENERATION DATA ... QUANTITY (LBS) EXPT. TOTAL 0.00

0.00

0.00

DAILY RATE

BATCH SIZE

RECLAMATION ACTION .. NONE

```
S/C SUBSYSTEM .... INVERTEBRATES EXPERIMENT SROUP KEY .... 3.4.2
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** EQUIPMENT/EXPERIMENT NO. 7BEHAVIOR INFLUENCES IN INVERTEBR ATES

**** WASTE SOURCE NO. 2 ORIENTATION AND GEOSENSING IN SPIDERS

DOCUMENT NO. 3.4.2.7.2

REFERENCE NO. 1 .. EXPERIMENT PROGRAM FOR EXTENDED EARTH OR BITAL MISSION REVISION DATED MAY 1969, NASA OFFICE OF MANNED SPACE FLIGHT

REFERENCE NO. 2 .. CULTURE METHODS FOR INVERTEBRATE ANIMALS
1937, GOLTSOFF, PAUL S. LUTZ, FRANK . W
ELCH, PAUL S. NEEDHAM, JAMES G. CGMST
OCK PUBLISHING CO.

REFERENCE NO. 3 .. ALL LIQUID POLLEN SUBSTITUTE FOR HONEY B

EE COLUNIES, AMERICAN BEF J 107(4)134

-135 1967, WEAVER, NEVIN, CHANTHONISA.R.

***** WASTE ITEM NO. 1 ... WIRE MESH CAGE

STATE SOLID

DENSITY 100.00 LBS/CU. FT. ATTRIBUTES METAL, CONTAMINATED

ELEMENTS PRESENT ..

COMPOSITION STEEL

GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 1.50
DAILY RATE 0.00
BATCH SIZE 1.50

RECLAMATION ACTION .. WASH

***** WASTE ITEM NO. 2 FECES

STATE SOLID

DENSITY 0.00 LBS/CU. FT. ATTRIBUTES ORGANIC, CONTAMINATED

ELFMENTS PRESENT ..

COMPOSITION ORGANIC

GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.00
DAILY RATE 0.00
BATCH SIZE 0.00

RECLAMATION ACTION .. NONE

S/C SUBSYSTEM INVERTEBRATES EXPERIMENT GROUP KEY 3.4.2

** EQUIPMENT/FXPERIMENT NO. 7BEHAVIOR INFLUENCES IN INVERTEBR ATES

**** WASTE SOURCE NO. 2 ORIENTATION AND GEOSENSING IN SPIDERS

***** WASTE ITEM NO. 3 CARBON DIOXIDE

STATE GAS

DENSITY 0.00 LBS/CU. FT.

ATTRIBUTES STABLE DANGEROUS FUMES

ELEMENTS PRESENT ..

COMPOSITION CARBON AND OXYGEN

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.00
DAILY RATE 0.00
BATCH SIZE 0.00

RECLAMATION ACTION .. REDUCE

***** WASTE ITEM NO. 4 WATER

STATE LIGUID

DENSITY 0.00 LBS/CU. FT.

ATTRIBUTES MIXTURE EXPIRED

FLEMENTS PRESENT .. H20

COMPOSITION HYDROGEN AND DXYGEN

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.00
DAILY RATE 0.00
BATCH SIZE 0.00

RECLAMATION ACTION .. NONE

***** WASTE ITEM NO. 5 PACKAGING MATERIAL

STATE SOLID

DENSITY C.OO LBS/CU. FT. ATTRIBUTES PAPER, CONTAMINATED

ELEMENTS PRESENT ..

COMPOSITION CELLULOSE

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.60 DAILY RATE 0.00 BATCH SIZE 0.05

RECLAMATION ACTION .. REUSE AS IS

S/C SUBSYSIEM SMALL VERTEBRATES EXPERIMENTS SROUP KEY 3.4.3

BASIC FUNCTION PERFORM MISSION TASKS
FUNCTIONAL REQUIREMENT BIOLOGICAL SCIENCES AND BIOTECHN
OLOGY STUDIES

** EQUIPMENT/EXPERIMENT NO. 1 THE ROLF OF GRAVITY IN CARDIOVAS CULAR FUNCTION

ASSCCIATED FPE NUMBER ...
S/C AREAS BIC-LABORATORY

ANIMAL HOUSING

**** WASTE SOURCE NO. 1 THE RCLE OF GRAVITY IN CARDIOVASCULAR FU NCTION

DOCUMENT NO. 3.4.3.1.1*

REFERENCE NO. 1 .. EXPERIMENT PROGRAM FOR EXTENDED EARTH OR BITAL MISSIONS REVISION DATED MAY 1969, NASA OFFICE OF MANNED SPACE FLIGHT.

REFERENCE NO. 2 .. GRCWTH INCLUDING REPRODUCTION AND MORPHO LOGICAL DEVEL., BIG. HANDBOOKS 1962, ED. BY ALTMAN P.L., AND DITTMER C.S., FED. OF AMERICAN SOCIETIES FOR EXPERIMENTAL B

REFERENCE NO. 3 .. COMPARATIVE ANIMAL PHYSIOLOGY 1961 SECON D EDITION, PROSSER C.L. AND BROWN, F.A.

JR.; W.B. SAUNDERS & CO.

REFERENCE NO. 4 .. STANDARD VALUES IN NUTRITION AND METABOL ISM 1953, EDITED BY ALBRITTON E.C., V'RIG HT AIR DEVELOPMENT CENTER, WRIGHT-PATTER SON AIR FORCE BASE, OHIC.

REFERENCE NO. 5 .. ANIMALS FOR RESEARCH-PRINCIPALS OF BREED ING AND MANAGEMENT 1963, EDITED BY LANE PETER W., ACADEMIC PRESS.

***** WASTE ITEM NO. 1 CAGES (3)

STATE SOLID

DENSITY 10C.00 LBS/CU. FT. ATTRIBUTES METAL CONTAMINATED

ELEMENTS PRESENT ..

COMPOSITION STEEL

GENERATION DATA ...

DATA ... QUANTITY (LBS)
EXPT. TOTAL 270.00
DAILY RATE 4.50
BATCH SIZE 0.00

```
S/C SUBSYSTEM .... SMALL VERTEBRATES EXPERIMENTS
   GROUP KEY .... 3.4.3
** EQUIPMENT/EXPERIMENT NO. 1 .....THE RCLE OF GRAVITY IN CARDIOVAS
                                 CULAR FUNCTION
**** WASTE SOURCE NO. 1 .... THE RCLE CF GRAVITY IN CARDICVASCULAR FU
                          NCTION
***** WASTE ITEM NO. 2 .... FOCD DISH
        STATE ..... SOLID
        DENSITY ..... 8.64 LBS/CU. FT.
         ATTRIBUTES ..... PLASTIC CONTAMINATED
        ELEMENTS PRESENT ..
        COMPOSITION ..... POLYSTYRENE
        GENERATION DATA ...
                                        QUANTITY (LBS)
                 EXPT. TOTAL
                                         2.70
                 DAILY RATE
                                          0.04
                 BATCH SIZE
                                         0.00
        RECLAMATION ACTION .. WASH
***** WASTE ITEM NO. 3 .... WATER BOTTLE
        STATE ..... SOLID
        DENSITY ..... 46,66 LBS/CU. FT.
        ATTRIBUTES ..... GLASS CONTAMINATED
        ELEMENTS PRESENT ..
        COMPOSITION ..... BOROSILICATES
        GENERATION DATA ...
                                        QUANTITY (LBS)
                 EXPT. TOTAL
                                         45.00
                 DAILY RATE
                                          0.75
                 BATCH SIZE
                                          0.00
        RECLAMATION ACTION .. WASH
***** WASTE ITEM NO. 4 ... WIPES WITH BACTERICIDE HAIR
         STATE ..... SOLID
        DENSITY ..... 6.07 LBS/CU. FT.
        ATTRIBUTES ..... ORGANIC , PAPER , BACTERICIDE
        ELEMENTS PRESENT ..
        COMPOSITION ..... ORGANIC , PAPER , BACTERICIDE
        GENERATION DATA ...
                                        QUANTITY (LBS)
                 EXPT. TOTAL
                                          8.40
                 DAILY RATE
                                          0.14
                 BATCH SIZE
                                          0.00
        RECLAMATION ACTION .. N/R
```

S/C SUBSYSTEM SMALL VERTEBRATES EXPERI'ENTS GROUP KEY 3.4.3 ** EQUIPMENT/EXPERIMENT NO. 1 THE RULE OF GRAVITY IN CARDIOVAS CULAR FUNCTION **** WASTE SOURCE NO. 1 THE ROLE OF GRAVITY IN CARDIGVASCULAR FU NCTION ***** WASTE ITEM NO. 5 URINE, FECES, PAPER TOVEL, FECAL COLLECTBAG STATE SCLID LIQUID DENSITY 134.78 LBS/CU. FT. ATTPIBUTES CRGANIC, PAPER, PLASTIC CONTAMINATED ELEMENTS PRESENT .. COMPOSITION CRGANIC, CELLULOSE, TEFLON GENERATION DATA ... QUANTITY (LBS) EYPT. TOTAL 28.20 DAILY RATE 0.47 BATCH SIZE 0.00 RECLAMATION ACTION .. hMS *** WASTE ITEM NO. 6 ... PACKAGING MATERIAL STATE SOLID DENSITY C.08 LBS/CU. FT. ATTRIBUTES PAPEP, PLASTIC CONTAMINATED ELEMENTS PRESENT ..

BATCH SIZE RECLAMATION ACTION .. REUSE AS IS

EXPT. TOTAL

DAILY RATE

GENERATION DATA ...

CCMPOSITION CELLULOSE, POLYETHELENE

QUANTITY (LBS)

1.20

0.02

0.00

S/C SUBSYSTEM SMALL VERTEBRATES EXPERIMENTS GROUP KEY 3.4.3

** EQUIPMENT/EXPERIMENT NO. 2 THE LIFE CYCLE OF RODENTS

ASSOCIATED FPE NUMBER ...

S/C AREAS BIG-LABORATORY

ANIMAL HOUSING

**** WASTE SOURCE NO. 1 PREGNANCY AND GROWTH IN THE MAMMALIAN OR GANISM

DOCUMENT NO. 3.4.3.2.1

REFERENCE NO. 1 .. EXPERIMENT PROGRAM FOR EXTENDED EARTH OR BITAL MISSION REVISION DATED MAY 1969, N
ASA OFFICE OF MANNEC SPACE FLIGHT.

REFERENCE NO. 2 .. STANDARD VALUES IN NUTRITION AND METABOL ISM 1953 ALBRITTON, E.C. EDITOR WRIGHT AIR PORCE BASE, OHIO.

REFERENCE NO. 3 .. COMPARATIVE ANIMAL PHYSIOLOGY 1961 SECON D EDITION, PROSSER, C.R. AND BROWN, F.A., JR., W.B. SAUNDERS & CC.

REFERENCE NO. 4 .. ANIMALS FOR RESEARCH-PRINCIPALS CF BREED ING AND MANAGEMENT 1963, LANE-PETTER, W. EDITOR, ACADEMIC PRESS.

REFERENCE NO. 5 .. GRCWTH INCLUDING PEPRODUCTION AND MORPHO LOGICAL DEVEL., BIO. HANDBOOKS 1962, ED. BY ALTMAN, P.L., AND DITTMER, D.S., FED. OF AMERICAN SOCIETIES FOR EXPERIMENTAL

**** WASTE ITEM NO. 1 CAGES (24)

STATE SOLID

DENSITY 10C.00 LBS/CU. FT. ATTRIBUTES METAL CONTAMINATED

ELEMENTS PRESENT ...

COMPOSITION STEEL

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 12140.00
DAILY RATE 36.00
BATCH SIZE 0.00

```
S/C SUBSYSTEM .... SMALL VERTEBRATES EXPERIMENTS
    GROUP KEY .... 3.4.3
** EQUIPMENT/EXPERIMENT NO. 2 .....THE LIFE CYCLE CF RODENTS
**** WASTE SOURCE NO. 1 .... PREGNANCY AND GROWTH IN THE MAMMALIAN CR
                           GANISM
*** * WASTE ITEM NO. 2 .... WIPES, BACTERICIDE, HAIR
         STATE ..... SOLID
         DENSITY ..... 6.07 LBS/CU. FT.
         ATTRIBUTES ..... ORGANIC, BACTERICIDE, PAPER CONTAIMINATED
         ELEMENTS PRESENT ..
         COMPOSITION ..... ORGANIC, BACTERICIDE, CELLULOSE
         GENERATION DATA ...
                                        QUANTITY (LBS)
                  EXPT. TOTAL
                                        306.60
                  DAILY RATE
                                          0.84
                  BATCH SIZE
                                          6.07
         REGLAMATION ACTION .. N/R
***** WASTE ITEM NO. 3 .... SYRINGES
         STATE ..... SOLID
         DENSITY ..... 35.60 LBS/CU. FT.
         ATTRIBUTES ..... PLASTIC CONTAMINATED
         ELEMENTS PRESENT ..
         COMPOSITION ..... PGLYSTYPENE
         GENERATION DATA ...
                                        QUANTITY (LBS)
                  EXPT. TOTAL
                                           8.11
                  DAILY RATE
                                           0.00
                  BATCH SIZE
                                           0.16
         RECLAMATION ACTION .. N/R
**** WASTE ITEM NO. 4 ... GAUZE PADS, ALCOHOL
         STATE ..... SCLID
         DENSITY ..... C.17 LBS/CU. FT.
         ATTRIBUTES ..... GAUZE, ALCOHOL CONTAMINATED
         ELEMENTS PRESENT ..
         COMPOSITION ..... CELLULOSE, ALCOHOL
         GENERATION DATA ...
                                       QUANTITY (LBS)
                  EXPT. TOTAL
                                          1.25
                  DAILY RATE
                                           0.00
                  BATCH SIZE
                                           0.02
```

RECLAMATION ACTION .. N/R

S/C SUBSYSTEM SMALL VERTEBRATES EXPERIMENTS SROUP KEY 3.4.3

** EQUIPMENT/EXPERIMENT NO. 2THE LIFE CYCLE CF RODENTS

**** WASTE SOURCE NO. 1 PREGNANCY AND GROWTH IN THE MANMALIAN OR

GANISM

**** WASTE ITEM NO. 5 WATEP BUTTLE

STATE SOLID

DENSITY 46.66 LBS/CU. FT. ATTRIBUTES GLASS CONTAMINATED

ELEMENTS PRESENT ..

COMPOSITION BOROSILICATES

GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 2190.00
DAILY RATE 61.00
BATCH SIZE 0.00

RECLAMATION ACTION .. WASH

**** WASTE ITEM NO. 6 FOOD DISH

STATE SOLID

DENSITY 8.64 LBS/CU. FT. ATTRIBUTES PLASTIC CONTAMINATED

ELEMENTS PRESENT ..

COMPOSITION POLYSTYRENE

GENERATION DATA ... QUANTITY (L9S)

EXPT. TOTAL 132.40
DAILY RATE 0.36
BATCH SIZE 0.00

RECLAMATION ACTION .. WASH

***** WASTE ITEM NO. 7 CARBON DIOXIDE

STATE GAS

DENSITY C.12 LBS/CU. FT.

ATTRIBUTES STABLE DANGEROUS

ELEMENTS PRESENT .. C.O

COMPOSITION

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 1104.50 DAILY RATE 3.03 BATCH SIZE 0.00

RECLAMATION ACTION .. REDUCE

S/C SUBSYSTEM SMALL VERTEBRATES EXPERIMENTS SROUP KEY 3.4.3

** EQUIPMENT/EXPERIMENT NO. 2THE LIFE CYCLE CF RODENTS

*** LASTE SOURCE NO. 1 PREGNANCY AND GROWTH IN THE MAMMALIAN OR

GANISM

***** WASTE ITEM NO. 8 PACKAGING MATERIAL

STATE SOLID

DENSITY C.08 LBS/CU. FT.

ATTRIBUTES PLASTIC, PAPER CONTAMINATED

ELEMENTS PRESENT ..

COMPOSITION PGLYETHELENE, CELLULOSE

GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 14.60

DAILY RATE 0.04
BATCH SIZE 0.00

RECLAMATION ACTION .. REUSE AS IS

**** WASTE ITEM NO. 9 ... URINE, FECES, PAPER, FECAL COLLECTION BAG

STATE SOLID, LIQUID

DENSITY 134.78 LBS/CU. FT.

ATTRIBUTES CRCANIC, PAPER, PLASTIC CONTAMINATED

ELEMENTS PRESENT ..

CCMPOSITION ORGANIC, CELLULOSE, TEFLON

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 1445.40

— DAILY RATE 3.96
BATCH SIZE 0.00

S/C SUBSYSTEM SMALL VERTEBRATES EXPFRIMENTS GRCUP KEY 3.4.3

** EQUIPMENT/EXPERIMENT NO. 2THE LIFE CYCLE OF PODENTS

**** WASTE SOURCE NO. 2 PHYSIOLOGY AND BEHAVIOR THROUGH ONE GENE RATION

DOCUMENT NO. 3.4.3.2.2

REFERENCE NO. 1 .. EXPERIMENT PROGRAM FOR EXTENDED EARTH OR BITAL MISSIONS REVISION DATED MAY, 1969. NASA OMSF.

REFERENCE NO. 2 .. GROWTH INCLUDING REPRODUCTION AND MORPHO LOGICAL DEVEL., BIO. HANDBOOKS 1962, ED. BY ALTMAN, P.L., AND DITIMER, D.S., FED. OF AMERICAN SCCIETIES FOR EXPERIMENTAL

REFERENCE NO. 3 .. STANDARD VALUES IN NUTRITION AND METABOL ISM 1953, ALBRITTON E.C. EDITCR, WRIGHT AIR DEVELOPMENT CENTER: WRIGHT-PATTERSON AIR FORCE BASE, OHIO.

REFERENCE NO. 4 .. COMPARATIVE ANIMAL PHYSIOLOGY 1961 AND E DITIGN, PROSSER, C.L. AND BROWN, F. A. JR., W .B. SAUNDERS & CO.

REFERENCE NO. 5 .. ANIMALS FOR RESEARCH-PRINCIPLES OF BREED ING AND MANAGEMENT 1963, LANE-PETTER W., EDITOR ACADEMIC PRESS.

***** WASTE ITEM NO. 1 CAGES

STATE SOLID

DENSITY 10C.00 LBS/CU. FT.

ATTRIBUTES METAL CONTAMINATED

ECEMENTS PRESENT ..

COMPOSITION STEEL

GENERATION DATA ...

EXPT. TOTAL

QUANTITY (LBS)

3295.00

DAILY RATE BATCH SIZE

9.00 0.00

S/C SUBSYSTEM SMALL VERTEBRATES EXPERIMENTS 3ROUP KEY 3.4.3 ** EQUIPMENT/EXPERIMENT NO. 2THE LIFE CYCLE CF RODENTS *** WASTE SDURCE NO. 2 PHYSICLOGY AND BEHAVIOR THROUGH CNE CENE RATION **** WASTE ITEM NO. 2 CARBON DIDXIDE STATE GAS DENSITY C.12 LBS/CU. FT. ATTRIBUTES STABLE, DANGEROUS ELEMENTS PRESENT .. C,C COMPOSITION QUANTITY (LBS) GENERATION DATA ... 134.42 EXPT. TOTAL DAILY RATE 0.37 BATCH SIZE 0.12 RECLAMATION ACTION .. REDUCE ***** WASTE ITEM NO. 3 ... FGCD DISH STATE WASH DENSITY 8.64 LBS/CU. FT. ATTRIBUTES PLASTIC CONTAMINATED ELEMENTS PRESENT .. COMPOSITION POLYSTYRENE QUANTITY (LBS) GENERATION DATA ... EXPT. TOTAL 65.70 DAILY RATE 0.18 BATCH SIZE 0.00 RECLAMATION ACTION .. WASH **** WASTE ITEM NO. 4 WATER BOTTLE STATE SCLID DENSITY 46.66 LBS/CU. FT. ATTRIBUTES GLASS CONTAMINATED ELEMENTS PRESENT .. CCMPOSITION BORDSILICATES

GENERATIEN DATA ...

EXPT. TOTAL

DAILY RATE

BATCH SIZE

RECLAMATION ACTION .. WASH

QUANTITY (LBS)

1095.00

0.00

0.00

S/C SUBSYSTEM SMALL VERTEBRATES EXPERIMENTS GROUP KEY 3.4.3

** EQUIPMENT/EXPERIMENT NO. 2THE LIFE CYCLE OF RODENTS

**** WASTE SOURCE NO. 2 PHYSIOLOGY AND BEHAVIOR THROUGH ONE GENE

RATION

**** WASTE ITEM NO. 5 ... WIPES, BACTERICIDE, HAIR

STATE SOLID

DENSITY 6.07 LBS/CU. FT.

ATTRIBUTES ORGANIC BACTERICIDE. CELLULOSE

FLEMENTS PRESENT ..

COMPOSITION ORGANIC, BACTERICIDE, CELLULOSE

GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 153.30

DAILY RATE 0.42
BATCH SIZE 0.00

RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 6 PACKAGING

STATE SOLID

DENSITY 0.08 LBS/CU. FT.

ATTRIBUTES PLASTIC, PAPER CONTAMINATED

ELEMENTS PRESENT ...

COMPOSITION POLYETHELENE

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 7.30
DAILY RATE 0.02
BATCH SIZE 0.00

RECLAMATION ACTION .. REUSE AS IS

***** WASTE ITEM NO. 7 FECES, URINE, PAPER TOWEL, FECAL COLLECTBAG

STATE SOLID, LIQUID

DENSITY 134.78 LBS/CU. FT.

ATTRIBUTES ORGANIC, PAPER, PLASTIC CONTAMINATED

ELEMENTS PRESENT ..

COMPOSITION ORGANIC, CELLULOSE, TEFLON

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 730.00
DAILY RATE 2.00
BATCH SIZE 0.00

S/C SUBSYSTEM SMALL VERTEPRATES EXPERIMENTS GROUP KEY 3.4.3

** EQUIPMENT/EXPERIMENT NO. 2THE LIFE CYCLE OF RODENTS

**** WASTE SOURCE NO. 3 TURNOVER OF MINERALI7ED TISSUE

DOCUMENT NO. 3.4.3.2.3

REFERENCE NO. 1 .. EXPERIMENTAL PROGRAM FOR EXTENDED EARTH ORBITAL MISSION REVISION DATED MAY 1969. NASA OFFICE OF MANNED SPACE FLICHT.

2 .. STANDARD VALUES IN NUTRITION AND METABOL REFERENCE NO. ISM, 1953, ALBRITTON, E.C., EDITOR, WRIGHT A IR DEVELOPMENT CENTER, WRIGHT PATTERSON A IR FORCE BASE, OHIO.

3 .. ANIMALS FOR RESEARCH-PRINCIPLES OF BREED REFERENCE NO. ING AND MANAGEMENT, 1963, LANE PETTER, W. , EDITOR, ACADEMIC PRESS.

REFERENCE NO. 4 .. GRCWTH, INCLUDING REPRODUCTION AND DEVELO PMENT, BIOLOGICAL HANDBOOKS, 1962, EDITED B Y ALTMAN, P.L., AND DITTMER, O.S., FED. OF AMERICAN SOCIETIES FOR EXPERIMENTAL BIOL

REFERENCE NO. 5 .. COMPARATIVE ANIMAL PHYSIOLOGY 1961, SECON D EDITION, PROSSER, C.L., AND BRCWN, F.A., J R., W.B. SAUNDERS & CO.

**** WASTE ITEM NO. 1 CAGES

STATE SOLID

DENSITY 10C.00 LBS/CU. FT. ATTRIBUTES METAL CONTAMINATED

ELEMENTS PRESENT ..

COMPOSITION STEEL

GENERATIEN DATA ... EXPT. TOTAL

DAILY RATE

BATCH SIZE

RECLAMATION ACTION .. KASH

QUANTITY (LBS)

2190.00

6.00

0.00

```
S/C SUBSYSTEM .... SMALL VERTEBRATES EXPERIMENTS
   GROUP KEY .... 3.4.3
** EQUIPMENT/EXPERIMENT NO. 2 .....THE LIFE CYCLE OF RODENTS
**** WASTE SOURCE NO. 3 .... TURNOVER OF MINERALIZED TISSUE
***** WASTE ITEM NO. 2 .... WATER BOTTLE
         STATE ..... SOLID
         DENSITY ..... 46.66 LBS/CU. FT.
         ATTRIBUTES ..... GLASS CONTAMINATED
         ELEMENTS PRESENT ..
         COMPOSITION ..... BDROSILICATES
         GENERATION DATA ...
                                         QUANTITY (LBS)
                  EXPT. TOTAL
                                         365.00
                  DAILY RATE
                                           1.00
                  BATCH SIZE
                                           0.00
         RECLAMATION ACTION ... WASH
**** WASTE ITEM NO. 3 .... FOOD DISH
         STATE ..... SOLID
         DENSITY ..... 8.64 LBS/CU. FT.
         ATTRIBUTES ..... PLASTIC CONTAMINATED
         ELEMENTS PRESENT ..
         COMPOSITION ..... POLYSTYRENE
         GENERATION DATA ...
                                         QUANTITY (LBS)
                  EXPT. TOTAL
                                           21.90
                  DAILY RATE
                                           0.06
                  BATCH SIZE
                                          0.00
         RECLAMATION ACTION .. WASH
***** WASTE ITEM NO. 4 .... CARBON DIOXIDE
         STATE ..... GAS
         DENSITY ..... 0.12 LBS/CU. FT. ATTRIBUTES ..... STABLE, DANGEROUS
         ELEMENTS PRESENT .. C.O
         COMPOSITION ....
         GENERATION DATA ...
                                         QUANTITY (LBS)
                 EXPT. TOTAL
                                          26.86
                  DAILY RATE
                                           0.07
                  BATCH SIZE
                                           0.00
         RECLAMATION ACTION .. REDUCE
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S/C SUBSYSTEM .... SMALL VERTEBRATES EXPERIMENTS
   GROUP KEY .... 3.4.3
** EQUIPMENT/EXPERIMENT NO. 2 .....THE LIFE CYCLE OF RODENTS
*** WASTE SOURCE NO. 3 .... TURNOVER OF MINERALIZED TISSUE
***** WASTE ITEM NO. 5 .... WIPES, BACTERICIDE, HAIR
         STATE ..... SOLID
         DENSITY ..... 6.07 LBS/CU. FT.
         ATTRIBUTES .... PAPER, BACTERICIDE, HAIR CONTAMINATED
         ELEMENTS PRESENT ..
         COMPOSITION ..... CELLULOSE, BACTERICIDE, ORGANIC
         GENERATION DATA ...
                                         QUANTITY (LBS)
                  EXPT. TOTAL
                                           51.10
                  DAILY RATE
                                           0.14
                  BATCH SIZE
                                            0.00
         RECLAMATION ACTION .. N/R
***** WASTE ITEM NO. 6 .... FECES, URINE, PAPER TOWEL, FECAL COLLECTBAG
         STATE ..... SCLID, LIQUID
         DENSITY ......... 134.78 LBS/CU. FT.
         ATTRIBUTES .... PAPER, ORGANIC, PLASTIC CONTAMINATED
         ELEMENTS PRESENT ..
         COMPOSITION ..... CELLULCSE, ORGANIC, TEFLON
         GENERATION DATA ...
                                         QUANTITY (LBS)
                  EXPT. TOTAL
                                          230.90
                  DAILY RATE
                                           0.66
                  BATCH SIZE
                                            0.00
         RECLAMATION ACTION .. WMS
***** WASTE ITEM NO. 7 .... PACKAGING MATERIAL
         STATE ...... SOLID
         DENSITY ..... 0.08 LBS/CU. FT.
         ATTRIBUTES ..... PAPER, PLASTIC CONTAMINATED
         ELEMENTS PRESENT ...
         CCMPOSITION ..... CELLULOSE, POLYETHELENE
         GENERATION DATA ...
                                         QUANTITY (LBS)
                  EXPT. TOTAL
                                            3.65
                  DAILY RATE
                                            0.01
                  BATCH SIZE
                                            0.00
         RECLAMATION ACTION .. REUSE AS IS
```

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S/C SUBSYSTEM .... SMALL VERTEBRATES EXPERIMENTS GROUP KEY .... 3.4.3
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** E JUIPMENT/EXPERIMENT NO. 2THE LIFE CYCLE OF RODENTS

*** WASTE SOURCE NO. 3 TURNOVER OF MINERALIZED TISSUE

**** WASTE ITEM NO. 8 SYRINGE

STATE SCLID

DENSITY 35.60 LBS/CU. FT. ATTRIBUTES PLASTIC, RADIOACTIVE

ELEMENTS PRESENT ..

COMPOSITION POLYSTYRENE

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.65
DAILY RATE 0.00
BATCH SIZE 0.01

RECLAMATION ACTION .. N/R

S/C SUBSYSTEM SMALL VERTEBRATES EXPERIMENTS SROUP KEY 3.4.3

** EQUIPMENT/EXPERIMENT NO. 2THE LIFE CYCLE CF RODENTS

**** WASTE SOURCE NO. 4 ... METABOLIC ADAPTATION OF THE MAMMALIAN OR GANISM

DOCUMENT NO. 3.4.3.2.4

REFERENCE NO. 1 .. EXPERIMENTAL PROGRAM FOR EXTENDED EARTH ORBITAL MISSION, REVISION DATED MAY 1969, NASA O'SF.

REFERENCE NO. 2 .. STANDARD VALUES IN NUTRITION AND METABOL ISM, 1953, ALBRITTON, E.C. EDITOR, WRIGHT A IR DEVELOPMENT CENTER, WRIGHT PATTERSON AIR FORCE BASE, OHIO.

REFERENCE NO. 3 .. CCMPARATIVE ANIMAL PHYSIOLOGY, 1961 2ND E DITION, PROSSER C.L. AND BROWN F.A., JR. + W.B. SAUNDERSON CO.

REFERENCE NO. 4 .. ANIMALS FOR RESEARCH-PRINCIPALS CF BREED ING AND MANAGEMENT, 1963, LANE-PETTER W. EDITOR, ACADEMIC PRESS.

REFERENCE NO. 5 .. GRCWTH INCLUDING REPRODUCTION AND DEVFLO
PMENT, BIOLOGICAL HANDBOCKS 1962, EDITED
BY ALTMAN P.L. AND CITTMER D.S., FED. OF
AMERICAN SOCIEITIES FOR EXPERIMENTAL BIO

QUANTITY (LBS)

*** *** WASTE ITEM NO. 1 CAGES

STATE SOLID

DENSITY 10C.00 LBS/CU. FT. ATTRIBUTES METAL CONTAMINATED

ELEMENTS PRESENT ..

CCMPOSITION STEEL

GENERATION DATA ...

EXPT. TOTAL 3285.00 DAILY RATE 9.00 BATCH SIZE 0.00

```
S/C SUBSYSTEM .... SMALL VERTEBRATES EXPERIMENTS
   GROUP KEY .... 3.4.3
** EQUIPMENT/EXPERIMENT NO. 2 .....THE, LIFE CYCLE OF RODENTS
**** WASTE SOURCE NO. 4 .... METABOLIC ADAPTATION OF THE MAMMALIAN OR
                           GANISM
*******************************
**** WASTE ITEM NJ. 2 .... FOOD DISH
         STATE ..... SOLID
         DENSITY ..... 207.36 LBS/CU. FT.
         ATTRIBUTES ..... GLASS CONTAMINATED
         ELEMENTS PRESENT ..
         CCMPOSITION ..... BOROSILICATES
                                         QUANTITY (LBS)
         GENERATION DATA ...
                  EXPT. TOTAL
                                          722.70
                  DAILY RATE
                                            1.98
                  BATCH SIZE
                                            0.00
         RECLAMATION ACTION .. WASH
***** WASTE ITEM NO. 3 .... WATER DISH
         STATE ..... SOLID
         DENSITY ..... 5.18 LBS/CU. FT.
         ATTRIBUTES .... PLASTIC CONTAMINATED
         ELEMENTS PRESENT ..
         COMPOSITION ..... POLYSTYRENE
         GENERATION DATA ...
                                         QUANTITY (LBS)
                  EXPT. TOTAL
                                          350.40
                  DAILY RATE
                                            0.96
                  BATCH SIZE
                                            0.00
         REGLAMATION ACTION .. WASH
***/ ** WASTE ITEM NO. 4 .... WIPES, BACTERICIDE, HAIR
       - STATE ..... SOLID
         DENSITY ..... 16.80 LBS/CU. FT.
         ATTRIBUTES ..... DRGANIC, PAPER, BACTERICIDE CONTAIMINATED
         ELEMENTS PRESENT ..
         COMPOSITION ..... ORGANIC, CELLULOSE, BACTERCIDE
         GENERATION DATA ...
                                         QUANTITY (LBS)
```

1095.00

3.00

0.00

EXPT. TOTAL

DAILY RATE

BATCH SIZE

RECLAMATION ACTION ...

```
S/C SUBSYSTEM .... SMALL VERTEBRATES EXPERIMENTS
    GROUP KEY .... 3.4.3
** EQUIPMENT/EXPERIMENT NO. 2 .....THE LIFE CYCLE OF RODENTS
**** WASTE SOURCE NO. 4 .... METABOLIC ADAPTATION OF THE MAMMALIAN OR
                           GANISM
**** ** WASTE ITEM NJ. 5 .... PACKAGING MATERIALS.
         STATE ..... SOLID
         DENSITY ..... C.08 LBS/CU. FT.
         ATTRIBUTES ..... PAPER, PLASTIC CONTAIMINATED
         ELEMENTS PRESENT ..
         CCMPOSITION ..... CFLLULOSE, POLYFTHLENE
         GENERATION DATA ...
                                         QUANTITY (LRS)
                  EXPT. TOTAL
                                           7.30
                  DAILY RATE
                                           0.02
                  BATCH SIZE
                                           0.00
         RECLAMATION ACTION .. REUSE AS IS
**** WASTE ITEM NO. . 6 .... CARBON DIOXIDE
         STATE ...... GAS
         DENSITY ..... C.12 LBS/CU. F1.
         ATTRIBUTES ..... STABLE, DANGEROUS
         ELEMENTS PRESENT .. C,C
         COMPOSITION ....
         GENERATION DATA ...
                                         QUANTITY (LBS)
                  EXPT. TOTAL
                                         456.25
                  DAILY RATE
                                           1.25
                  BATCH SIZE
                                           0.00
         RECLAMATION ACTION .. REDUCE
**** ** WASTE ITEM NO. 7 .... FECAL COLLECTION BAG, FECES, PAPER TOWEL
         STATE ..... SOLID
         DENSITY ...... 134-78 LBS/CU. FT.
         ATTRIBUTES .... ORGANIC, PAPER, PLASTIC CONTAMINATED
         ELEMENTS PRESENT ...
         COMPOSITION ..... CRGANIC, CELLULOSE, TEFLON
         GENERATION DATA ...
                                         QUANTITY (LBS)
                  EXPT. TOTAL
                                         408.80
                  DATLY RATE
                                           1.12
```

0.00

BATCH SIZE

S/C SUBSYSTEM SMALL VEPTEBRATES EXPERIMENTS FROUP KFY 3.4.3

***** ******* *

** EQUIPMENT/EXPERIMENT NO. 3 IMMUNE RESPONSES OF MAMIALS

ASSOCIATED FPE NUMBER ... N4
S/C AREAS BIO-LABORATCRY
ANIMAL HOUSING

**** KASTE SOURCE NO. 1 MOBILE CELLS AND MUCO PROTEINS

COCUMENT NO. 3.4.3.3.1

REFERENCE NO. 1 .. EXPERIMENT PROGRAM FOR EXTENDED EARTH OR BITAL MISSION REVISION DATED MAY 1969, N ASA OFFICE OF MANNED SPACE FLIGHT.

REFERENCE NO. 2 .. STANDARD VALUES IN NUTRITION AND METABOL ISM 1953 ALBRITTON E.C. EDITOR WRIGHT AIR DEVELOPMENT CENTER, WRIGHT PATTERSON AIR FORCE BASE.

REFERENCE NO. 3 .. COMPARATIVE ANIMAL PHYSIOLOGY 1961, 2ND EDITICN, PROSSER C.L. AND BROWN F.A. JR. -W.B. SAUNDERS & CO.

REFERENCE NO. 4 .. ANIMALS FOR RESEARCH-PRINCIPALS OF BREED ING AND MANAGEMENT 1963, LANE PETTER W. EDITOR, ACADEMIC PRESS.

**** WASTE ITEM NO. 1 ... CAGES (4)

STATE SOLID

DENSITY 100.00 LBS/CU. FT. ATTRIBUTES FETAL CONTAMINATED

ELEMENTS PRESENT ...

CCMPOSITION STEEL

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 540.00
DAILY RATE 6.00
BATCH SIZE 0.00

```
S/C SUBSYSTEM .... SMALL VERTFBRATES EXPERIMENTS
    3ROUP KEY .... 3.4.3
** E JUIPMENT/EXPERIMENT NO. 3 ..... IMMUNE TESPONSES OF MAMMALS
**** WASTE SOURCE NO. 1 .... MEBILE CELLS A' MUCC PROTEINS
**** WASTE ITEM NO. 2 .... WIPES WITH BACTERCIDE, HAIR
         STATE ..... SGLID
         DENSITY ..... 6.07 LBS/CU. FT.
         ATTRIBUTES ...... ORGANIC, PAPER, BACTERICIDE CONTAMINATED
         ELEMENTS PRESENT ..
         COMPOSITION ..... ORGANIC, CELLULOSE, BACERICIDE
         GENERATION DATA ...
                                        QUANTITY (LPS)
                  EXPT. TOTAL
                                          12.60
                  DAILY RATE
                                           0.14
                  SATCH SIZE
                                           0.00
         RECLAMATION ACTION .. R/R
***** WASTE ITEM NO. 3 ... URINE, FECES, PAPER TOWEL, FECAL COLLECTBAG
         STATE ..... SOLID, LIQUID
         DENSITY ...... 134.78 L8S/CU. FT.
         ATTRIBUTES ..... ORCANIC, PAPER, PLASTER CONTAMINATED
         ELEMENTS PRESENT ..
         COMPOSITION ..... ORGANIC, CELLULOSE, TEFLON
         GENERATION DATA ...
                                       QUANTITY (LBS)
                  EXPT. TOTAL
                                         36.90
                  DAILY RATE
                                          0.41
                  BATCH SIZE
                                          0.00
         RECLAMATION ACTION ... WMS
**** WASTE ITEM NO. 4 .... FOCD DISH
        -STATE ..... SOLID
         DENSITY ..... 8.64 LBS/CU. FT.
         ATTRIBUTES ..... PLASTIC CONTAMINATED
         ELEMENTS PRESENT ...
         COMPOSITION ..... POLYSTYRENE
         GENERATION DATA ...
                                        QUANTITY (LBS)
                  EXPT. TOTAL
                                           5 40
                  DAILY RATE
                                           0.06
                  BATCH SIZE
                                           0.00
         RECLAMATION ACTION .. WASH
```

S/C SUBSYSTEM SMALL VERTEBRATES EXPERIMENTS GROUP KEY 3.4.3 ** E JUIPMENT/EXPERIMENT NO. 3IMMUNE RESPONSES OF MAMMALS *** WASTE SOURCE NO. 1 MOBILE CELLS AND MUCO PROTFINS ***************************** ***** WASTE ITEM NO. 5 WATER BOTTLE STATE SCLID DENSITY 46.66 LBS/CU. FT. ATTRIBUTES GLASS CONTAMINATED ELEMENTS PRESENT .. C,C COMPOSITION BORDSILICATES QUANTITY (LBS) GENERATION DATA ... EXPT. TOTAL 90.00 1.00 DAILY RATE 0.00 BATCH SIZE RECLAMATION ACTION .. WASH **** ** WASTE ITEM NO. 6 SYRINGE STATE SCLID DENSITY 35.60 LBS/CU. FT. ATTRIBUTES PLASTIC CONTAMINATED ELEMENTS PRESENT ... CCMPOSITION POLYSTYRENE QUANTITY (LBS) GENERATION DATA ... 0.94 EXPT. TOTAL DAILY RATE 0.00 0.08 BATCH SIZE RECLAMATION ACTION .. N/R ***** WASTE ITEM NO. 7 GAUZE PADS, ALCOHOL STATE SOLID DENSITY C. 17 LBS/CU. FT. ATTRIBUTES GAUZE, ALCOHOL CONTAMINATED ELEMENTS PRESENT .. COMPOSITION CELLULOSE, ALCOHOL GENERATION DATA ... QUANTITY (LBS) EXPT. TOTAL 0.14 DAILY RATE 0.00 BATCH SIZE 0.01

```
S/C SUBSYSTEM .... SMALL VERTEBRATES EXPERIMENTS
     GROUP KEY .... 3.4.3
 ** EJUIPMENT/EXPERIMENT NO. 3 ..... IMMUNE RESPONSES OF MAMMALS
  *** WASTE SOURCE NO. 1 ... MOBILE CELLS AND MUCC PROTEINS
  ******************
  ***** WASTE ITEM NJ. 8 .... PACKAGING MATERIAL
           STATE ..... SOLID
           DENSITY ..... C.08 LBS/CU. FT.
           ATTRIBUTES ..... PAPER, PLASTIC CONTAMINATED
           ELEMENTS PRESENT ..
           CCMPOSITION ..... CELLULOSE, POLYETHELENE
                                           QUANTITY (LBS)
           GENERATION DATA ...
                    EXPT. TOTAL
                                             2.70
                                             0.03
                    DAILY RATE
                                             0.00
                    BATCH SIZE
           RECLAMATION ACTION .. REUSE AS IS
***** WASTE ITEM NO. 9 .... WATER BOTTLE
           STATE ..... SOLID
           DENSITY ..... 0.00 LBS/CU. FT.
           ATTRIBUTES ..... GLASS, CONTAMINATED
           ELEMENTS PRESENT ..
           CCMPOSITION ..... BOROSILICATES
                                           QUANTITY (LBS)
           GENERATION DATA ...
                    EXPT. TOTAL
                                            90.00
                    DAILY RATE
                                             1.00
                                             0.00
                    BATCH SIZE
```

```
S/C SUBSYSTEM ..... SMALL VERTEBRATES EXPERIMENTS 3ROUP KEY ..... 3.4.3
```

**** WASTE SOURCE NO. 2 PROD.AND PERSISTANCE OF CIRCULATING ANTI -BCDIES

DOCUMENT NO. 3.4.3.3.2

REFERENCE NO. 1 .. GRCWTH INCLUDING REPRODUCTION AND MURFHO LOGICAL DEVEL., PIO. HANDBOOKS, 1962, EDIT ED BY ALTMAN, P.L., AND DITIMER, D.S., FFD.OF AMERICAN SOCIETIES FOR EXPERIMENTAL BI

REFERENCE NO. 2 .. STANDARD VALUES IN NUTRITION AND METABOL ISM, 1953, ALBRITTON, E.C. EDITOR, WRIGHT A IR DEVELOPMENT CENTER, URIGHT-PATTERSON A IR FORCE BASE, OHIO.

REFERENCE NO. 3 .. COMPARATIVE ANIMAL PHYSIOLOGY, 1961, PRO SSER, C.L., AND BROWN, F.A., JR., 2ND EDIT ION, W.3. SAUNDERS CO.

REFERENCE NO. 4 .. EXPERIMENT PPOGRAM FOR EXTENDED EARTH OR BITAL MISSIONS REVISION DATED MAY 1969 N ASA OFFICE OF MANNED SPACE FLIGHT.

**** WASTE ITEM NO. 1 CAGE RACKS

STATE SOLID

DENSITY 100.00 LBS/CU. FT. ATTRIBUTES PETAL CONTAMINATED

ELEMENTS PRESENT ..

COMPOSITION STFEL

GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 810.00

DAILY RATE 0.09 BATCH SIZE 0.00

RECLAMATION ACTION .. WASH

**** WASTE ITEM NO. 2 FOOD DISH

STATE SOLID

DENSITY 8.64 LBS/CU. FT.
ATTRIBUTES PLASTIC CONTAMINATED

ELEMENTS PRESENT ..

COMPOSITION POLYSTYRENE

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 8.10
DAILY RATE 0.00
BATCH SIZE 0.00

```
S/C SUBSYSTEM .... SMALL VERTEBRATES EXPERIMENTS
    GROUP KEY .... 3.4.3
** FQUIPMENT/EXPERIMENT NO. 3 ..... IMMUNE RESPONSES OF MAMMALS
**** WASTE SOURCE NO. 2 .... PRCD.AND PERSISTANCE OF CIRCULATING ANTI
                            -BCDIES
**************************************
**** WASTE ITEM NO. 3 ... URINE, COLLECTION BAG
         STATE ...... SOLID, LIQUID DENSITY ..... 134.78 LBS/CU. FT.
         ATTRIBUTES ..... CRGANIC, PLASTIC CONTAMINATED
         ELEMENTS PRESENT ..
         COMPOSITION ..... CRGANIC, TEFLON
                                           QUANTITY (LBS)
         GENERATION DATA ...
                                             70.20
                   EXPT. TOTAL
                   DAILY RATE
                                              0.78
                   BATCH SIZE
                                              0.00
         RECLAMATION ACTION .. WMS
***** WASTE ITEM NO. 4 .... FECES, COLLECTION BAG
          STATE ..... SOLID
         DENSITY ......... 134.78 LBS/CU. FT.
          ATTRIBUTES ..... ORGANIC, PLASTIC CONTAMINATED
         ELEMENTS PRESENT ..
         COMPOSITION ..... ORGANIC, TEFLON
                                           QUANTITY (LBS)
          GENERATION DATA ...
                   EXPT. TOTAL
                                             48.60
                   DAILY RATE
                                              0.51
                   BATCH SIZE
                                              0.00
          RECLAMATION ACTION .. WMS
***** WASTE ITEM NO. 5 .... SYRINGES
          STATE ..... SOLID
          DENSITY ..... 35.60 LBS/CU. FT.
          ATTRIBUTES ..... PLASTIC CONTAMINATED
          ELEMENTS PRESENT ..
          COMPOSITION ..... POLYSTYRENE
          GENERATION DATA ...
                                           QUANTITY (LBS)
                   EXPT. TOTAL
                                              0.62
                   DAILY RATE
                                              0.00
                   BATCH SIZE
                                              0.31
```

```
S/C SUBSYSTEM .... SMALL VERTEBRATES EXPERIMENTS
   3ROUP KEY .... 3.4.3
** EQUIPMENT/EXPERIMENT NO. 3 .....IMMUNE RESPONSES OF MAMMALS
**** WASTE SOURCE NO. 2 .... PROD.AND PERSISTANCE OF CIRCULATING ANTI
                          -BEDIES
**** WASTE ITEM NO. 6 .... GAUZE PADS, ALCOHOL
         STATE .... SOLID
        DENSITY ..... U.17 LBS/CU. FT.
        ATTRIBUTES ..... GAUZE ALCOHOL CONTAMINATED
        ELEMENTS PRESENT ...
        COMPOSITION ..... CELLULOSE, ALCOHOL
        GENERATION DATA ...
                                        QUANTITY (LBS)
                 EXPT. TOTAL
                                          0.10
                 DAILY RATE
                                          0.00
                 BATCH SIZE
                                          0.05
        RECLAMATION ACTION .. N/R
****** WASTE ITEM NO. 7 .... WIPES, BACTERICIDE, HAIR
        STATE ..... SOLID
        DENSITY ..... b. C7 LBS/CU. FT.
        ATTRIBUTES ..... GAUZF, BACTERICIDE, ORGANIC CONTAMINATED
        ELEMENTS PRESENT ..
        COMPOSITION ..... ORGANIG, CELLULOSE, BACTERCIDE
        GENERATION DATA ...
                                       QUANTITY (LBS)
                 EXPT. TOTAL
                                         16.20
                 DAILY RATE
                                          0.18
                 BATCH SIZE
                                          0.00
        RECLAMATION ACTION .. N/R
***** WASTE ITEM NO. 8 ... PAPER TOWEL, ANIMAL HAIR
         STATE ...... SOLID
        DENSITY ..... 6.07 LBS/CU. FT.
        ATTRIBUTES ..... PAPER CONTAMINATED
        ELEMENTS PRESENT ..
        COMPOSITION ..... CELLULOSE, ORGANIC
        GENERATION DATA ...
                                       QUANTITY (LBS)
                 EXPT. FOTAL
                                        5140.00
                 DAILY RATE
                                          0.06
                 BATCH SIZE
                                           0.00
```

S/C SUBSYSTEM SMALL VERTEBRATES EXPFRIMENTS GROUP KEY 3.4.3 ** EQUIPMENT/EXPERIMENT NO. 3IMMUNE RESPONSES OF MARMALS *** WASTE SOURCE NO. 2 PRCD. AND PERSISTANCE OF CIRCULATING ANTI -BCDIES **** WASTE ITEM NO. 9 WATER BOTTLE STATE SOLID DENSITY 46.66 LBS/CU. FT. ATTRIBUTES GLASS CONTAMINATED ELEKENTS PRESENT .. COMPOSITION BOROSILICATES GENERATION DATA ... QUANTITY (LBS) EXPT. TOTAL 135.00 DAILY RATE 1.50 BATCH SIZE 0.00 RECLAMATION ACTION .. STERILIZE ***** WASTE ITEM NO. 10 ... CARBON DICXIDE STATE GAS DENSITY C.12 LBS/CU. FT. ATTRIBUTES STABLE, DANGEROUS ELEMENTS PRESENT .. C.O CCMPOSITION GENERATION DATA ... QUANTITY (LBS) EXPT. TOTAL 18.00 DAILY RATE 0.20 BATCH SIZE 0.00 RECLAMATION ACTION .. REDUCE **** WASTE ITEM NO. 11 PACKAGING MATERIAL STATE SOLID DENSITY C.08 LBS/CU. FT. ATTRIBUTES PAPER, PLASTIC CONTAMINATED ELEMENTS PRESENT .. COMPOSITION CELLULCSE, POLYETHELENE GENERATION DATA ... QUANTITY (LBS) EXPT. TOTAL 2.70

0.03

0.00

DAILY RATE

RECLAMATION ACTION .. REUSE AS IS

BATCH SIZE

```
S/C SUBSYSTEM .... SMALL VERTEBRATES EXPERIMENTS
    GROUP KEY .... 3.4.3
** E JUIPMENT/EXPERIMENT NO. 4 ..... EMBRYOGENESIS AND DEVELOPMENT IN
                                   AMPHIBIA
         ASSOCIATED FPE NUMBER ...
         S/C AREAS ..... BIO-LABORATORY
                           ANIMAL HOUSING
**** WASTE SOURCE NO. 1 .... EMERYOGENESIS AND DEVELOPMENT IN AMPHIBI
         DOCUMENT NO. ..... 3.4.3.4.1*
         REFERENCE NO. 1 .. EXPERIMENT PROGRAM FOR EXTENDED EARTH OR
                           BITAL MISSIONS REVISION DATED MAY 1969,
                           NASA OFFICE OF MANNED SPACE FLIGHT
         REFERENCE NO. 2 .. THE EFFECT OF WEIGHTLESSNESS ON THE DIVI
                           DING EGG OF RANA PIPEENS, YOUNG R.S. AND
                            TREMA J.W.-JUNE 1968 BIGSCIENCE VOL. 18
                            ND.6
***** WASTE ITEM NO. 1 ... MACERATED TESTES BOTTLE
         STATE ..... SOLID
         DENSITY ..... 86.40 LBS/CU. FT.
         ATTRIBUTES ..... ORGANIC, GLASS CONTAMINATED
         ELEMENTS PRESENT ..
         COMPOSITION ..... ORGANIC, BOROSILICATES, WATER
         GENERATION DATA ...
                                         QUANTITY (LBS)
                  EXPT. TOTAL
                                           0.02
```

0.00

0.02

BATCH SIZE RECLAMATION ACTION .. N/R

RECLAMATION ACTION .. N/R

DAILY RATE

***** WASTE ITEM NO. 2 FIXATIVE SOLUTION BOTTLE

STATE SGLID

DENSITY 52.87 LBS/CU. FT.

ATTRIBUTES GLASS CONTAMINATED

ELEMENTS PRESENT ..

COMPOSITION BOROSILICATES

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.04

DAILY RATE 0.00

BATCH SIZE 0.04

```
S/C SUBSYSTEM .... SMALL VERTEBRAIFS FXPERIMENTS
   GROUP KEY .... 3.4.3
** EQUIPMENT/EXPERIMENT NO. 4 ..... EMBRYOGENESIS AND DEVELOPMENT IN
                                   AMPHIBIA
**** WASTE SOURCE NO. 1 .... EMBRYCGENESIS AND DEVELOPMENT IN AMPHIBI
*** ** WASTE ITEN NO. 3 .... SYRINGE
         STATE ..... SOLID
         DENSITY ...... 35.60 LBS/CU. FT.
         ATTRIBUTES ..... PLASTIC CONTAMINATED
         ELEMENTS PRESENT ..
         CCMPOSITION ..... POLYSTYRENE
         GENERATION DATA ...
                                        QUANTITY (LBS)
                 EXPT. TOTAL DAILY RATE
                                           0.01
                                           0.00
                 BATCH SIZE
                                           0.01
         RECLAMATION ACTION .. N/R
** ** * WASTE ITEM NO. 4 .... FORCEPS
         STATE ..... SOLID
         DENSITY ..... 49C.00 LBS/CU. FT.
         ATTRIBUTES ..... METAL CONTAMINATED
         ELEMENTS PRESENT ..
         CCMPOSITION ..... STEEL
         GENERATION DATA ...
                                        QUANTITY (LBS)
                 EXPT. TOTAL
                                           0.35
                  DAILY RATE
                                           0.07
                  BATCH SIZE
                                           0.00
         RECLAMATION ACTION .. WASH
**** WASTE ITEM NO. 5 ... PACKAGING MATERIAL
         STATE ...... SOLID
         DENSITY ..... C.OB LBS/CU. FT.
         ATTRIBUTES ..... PAPER, PLASTIC CONTAMINATED
         ELEMENTS PRESENT ..
         COMPOSITION ..... CELLULOSE, POLYETHELENE
         GENERATION DATA ...
                                        QUANTITY (LBS)
                  EXPT. TOTAL
                                           0.05
                  DAILY RATE
                                           0.01
```

0.00

BATCH SIZE

RECLAMATION ACTION .. REUSE AS IS

```
11/33/70
                       RUN NO. ** 2 **
                                                        PAGE 302
S/C SUBSYSTEM .... SMALL VERTEBRATES EXPERIMENTS
    GROUP KEY .... 3.4.3
** E JUIPMENT/EXPERIMENT NO.
                           5 ..... GROWTH AND METABOLISM IN REPTILE
                                   S
         ASSOCIATED FPE NUMBER ...
         S/C AREAS ..... BIO-LABORATORY
                            ANIMAL HOUSING
**** WASTE SOURCE NO. 1 .... GROWTH AND METABOLISM IN REPTILES
         DOCUMENT NO. ..... 3.4.3.5.1*
         REFFRENCE NO. 1 .. EXPERIMENT PROGRAM FOR EXTENDED EARTH OR
                            BITAL MISSIONS, REVISION DATED MAY 1969,
                             NASA OFFICE OF MANNED SPACE FLIGHT
         REFERENCE NO. 2 .. STANDARD VALUES IN NUTRITION AND METABOL
                            ISM, 1953, ALBRITTON, E.C. EDITOR, WRIGHT
                            AIR DEVELOPMENT CENTER, WRIGHT-PATTERSON
                            AIR FORCE BASE, OHIO.
         REFERENCE NO. 3 .. COMPARATIVE ANIMAL PHYSIOLOGY 1961, PROS
                            SER C.L. AND BROWN F.A. JR., 2ND EDITION
                             W.B. SAUNDERS CO.
**** WASTE ITEM NO. 1 ... FECAL COLLECTION BAG, WATER, FECES, URINE
         STATE ..... SOLID, LIOUID
         DENSITY ..... 134.78 LBS/CU. FT.
         ATTRIBUTES ..... ORGANIC, PLASTIC CONTAMINATED
         ELEMENTS PRESENT ..
         COMPOSITION ..... ORGANIC, TEFLON
         GENERATION DATA ...
                                          QUANTITY (LBS)
                  EXPT. TOTAL
                                            18.14
                  DAILY RATE
                                            0.00
                  BATCH STZE
                                            6.14
         RECLAMATION ACTION .. N/R
```

**** WASTE ITEM NO. 2 CONTAINERS
STATE SOLID

DENSITY 10.45 LBS/CU. FT.

ATTPIBUTES GLASS, METAL CONTAMINATED

ELEMENTS PRESENT ...

COMPOSITION BOROSILICATES

GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 72.00
DAILY RATE 0.00
BATCH SIZE 24.00

```
S/C SUBSYSTEM .... SMALL VERTEBRATES EXPERIMENTS
   3ROUP KEY .... 3.4.3
** E )UIPMENT/EXPERIMENT NU. 5 .....GROWTH AND METABCLISM IN REPTILE
                                  S
÷*÷⊁ WASTE SOURCE NO. I .... GRCWTH AND METABOLISM IN REPTILES
**** WASTE ITEM NO. 3 ... CARBON DIOXIDE
         STATE ..... GAS
         DENSITY ..... C.12 LBS/CU. FT. ATTRIBUTES ..... STABLE, DANGEROUS
         ELEMENTS PRESENT .. C,O
         COMPOSITION .....
         GENERATION DATA ...
                                        QUANTITY (LBS)
                  EXPT. TOTAL
                                          14.40
                  DAILY RATE
                                           0.16
                  BATCH SIZE
                                           0.00
         RECLAMATION ACTION .. REDUCE
**** WASTE ITEM NO. 4 .... SAND
         STATE ..... SOLID
         DENSITY ...... 12C.00 LBS/CU. FT.
         ATTRIBUTES ..... SAND CONTAMINATED
         ELEMENTS PRESENT ..
         COMPOSITION ..... WASH
         GENERATION DATA ...
                                         QUANTITY (LBS)
                  EXPT. TOTAL
                                          18.00
                                           0.00
                  DAILY RATE
                  BATCH SIZE
                                           6.00
         RECLAMATION ACTION .. WASH
**** WASTE ITEM NO. 5 .... AQUATIC PLANTS
         STATE ..... SOLID
         DENSITY ...... 15.00 LBS/CU. FT.
         ATTRIBUTES ..... BRGANIC CONTAMINATED
         ELEMENTS PRESENT ..
         CCMPOSITION ..... ORGANIC
         GENERATION DATA ...
                                         QUANTITY (LBS)
                  EXPT. TOTAL
                                            ,62
                  DAILY RATE
                                             .00
                  BATCH SIZE
                                             ,54
         RECLAMATION ACTION .. WASH
```

S/C SUBSYSTEM SMALL VEPTFBRATES EXPERIMENTS SRCUP KEY 3.4.3

** EQUIPMENT/EXPERIMENT NO. 5GROWTH AND METABOLISM IN REPTILE S

***** WASTE ITEM NO. 6 ... PACKAGING MATERIAL

STATE SOLID

DENSITY C.08 LBS/CU. FT. ATTRIBUTES PAPER CONTAMINATED

ELFMENTS PRESENT ..

CCMPOSITION CELLULOSE

GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.06

DATLY RATE 0.00
BATCH SIZE 0.02

PFGLAMATION ACTION .. REUSE AS IS

S/C SUBSYSTEM SMALL VERTEBRATES EXPERIMENTS GROUP KEY 3.4.3

** EQUIPMENT/EXPERIMENT NO. 6 INFLUENCE OF GRAVITY ON BEHAVIOR IN MAMMALS

ASSOCIATED FPE NUMBER ...

S/C AREAS BIG-LABORATORY ANIMAL HOUSING

**** WASTE SOURCE NO. 1 INFLUENCE OF GRAVITY ON BEHAVIOR IN MAMM ALS

DOCUMENT NO. 3.4.3.6.1

REFERENCE NO. 1 .. EXPERIMENT PROGRAM FOR EXTENDED EAPTH OR PITAL MISSION, REVISION DATED MAY 1969, NASA OFFICE OF MANNED SPACE FLIGHT.

REFFRENCE NO. 2 .. STANDARD VALUES IN NUTRITION AND METABOL ISM 1953, ALBRITTON E.C. EDITOR, WRIGHT AIR DEVELOPMENT CENTER, WRIGHT-PATTERSON AIR FORCE BASE, DHIC.

REFERENCE NO. 3 .. CCMPARATIVE ANIMAL PHYSICLOGY 1961, 2ND EDITION, PROSSER C.L. AND BROWN, F.A.JR., W.B. SAUNDERS & CO.

REFERENCE NO. 4 .. ANIMALS FOR RESEARCH-PRINCIPALS CF BREED ING AND MANAGEMENT 1963, LANE-PETTER, W. EDITOR, ACADEMIC PRESS.

***** WASTE ITEM NO. 1 CAGES (4)

STATE SOLID

DENSITY 10C.00 LBS/CU. FT. ATTRIBUTES METAL CONTAMINATED

ELEMENTS PRESENT ..

COMPOSITION STEEL

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 316.00
DAILY RATE 0.41
BATCH SIZE 0.00

S/C SUBSYSTEM SMALL VERTEBRATES EXPERIMENTS GROUP KEY 3.4.3 ** ENUIPMENT/EXPERIMENT NO. 6INFLUENCE OF GRAVITY ON BEHAVIOR IN MAMMALS *** WASTE SOURCE NO. 1 INFLUENCE OF GRAVITY ON BEHAVIOR IN MAMM ALS **** WASTE ITEM NO. 2 ... WIPES WITH BACTERICIDE, HAIR STATE SOLID DENSITY 6.07 LBS/CU. FT. ATTRIBUTES BACTERICIDE, PAPER, ORGANIC CONTAMINATED ELEMENTS PRESENT ... COMPOSITION BACTERICIDE, CELLULOSE, ORGANIC GENERATION DATA ... QUANTITY (LBS) EXPT. TOTAL 7.84 DAJLY RATE 0.14 BATCH SIZE 0.00 RECLAMATION ACTION .. N/R ***** WAS1E ITEM NO. 3 PAPER TOWEL, FECES, URINE, FECAL COLLECTBAG STATE SOLID, LIQUID DENSITY 134.78 LBS/CU. FT. ATTRIBUTES CRGANIC, PAPER, PLASTIC CONTAMINATED ELEMENTS PRESENT .. COMPOSITION ORGANIC, CELLULDSE, TEFLON GENERATION DATA ... QUANTITY (LBS) EXPT. TOTAL 22.96 DAILY RATE 0.00 0.00 BATCH SIZE - RECLAMATION ACTION ...

***** WASTE ITEM NO. 4 FOOD DISH

STATE SOLID

DENSITY 8.64 LBS/CU. FT.

ATTRIBUTES PLASTIC CONTAMINATED

ELEMENTS PRESENT ..

COMPOSITION POLYSTYRENE

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 3.36
DAILY RATE 0.06
BATCH SIZE 0.00

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11/33/70
S/C SUBSYSTEM
GROUP KEY
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S/C SUBSYSTEM SMALL VERTEBRATES EXPERIMENTS GROUP KEY 3,4.3

** EQUIPMENT/EXPERIMENT NO. 6INFLUENCE OF GRAVITY ON REHAVIOR IN MAMMALS

**** WASTE SOURCE NO. 1 INFLUENCE OF GRAVITY ON BEHAVIOR IN MAMM ALS

***** WASTE ITEM NO. 5 WATER BOTTLE STATE SOLID

DENSITY 46.66 LBS/CU. FT. ATTRIBUTES GLASS CONTAMINATED

ELEMENTS PRESENT ..

COMPOSITION BOROSILICATES

GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 56.00
DAILY RATE 1.00
BATCH SIZE 0.00

RECLAMATION ACTION .. WASH

**** ** WASTE ITEM NO. 6 CARBON DIOXIDE

STATE GAS

DENSITY C.12 LBS/CU. FT.

ATTRIBUTES STABLE, DANGEROUS

ELEMENTS PRESENT .. C, G

COMPOSITION

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 14.94
DAILY RATE 0.26
BATCH SIZE 0.00

RECLAMATION ACTION .. REDUCE

***** WASTE ITEM NO. 7 PACKAGING MATERIAL

STATE SOLID

DENSITY 0.08 LBS/CU. FT.

ATTRIBUTES PAPER, PLASTIC CONTAMINATED

ELEMENTS PRESENT ..

COMPOSITION CELLULOSE, POLYETHELENE

GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 1.12

EXPT. TOTAL 1.12
DAILY RATE 0.02
BATCH SIZE 0.00

RECLAMATION ACTION .. REUSE AS IS

S/C SUBSYSTEM SMALL VERICERATES EXPERIMENTS SPEUP KEY 3.4.3

** CJUIPMENT/CXPERIMENT NO. 7 INFLUENCE ON BLORYTHMS OF ANIMAL S

ASSUCIATED FPE NUMBER ... NEE
S/C AREAS BIC-LABCRATORY
ANIMAL HOUSING

**** WASIE SOURCE NO. 1 INFLUENCE ON BIORYTHMS C! ANIMALS

DOCUMENT NJ. 3.4.3.7.1

REFERENCE NO. 1 .. EXFERIMENT PROGRAM FOR EXTENDED EARTH GR BITAL MISSIONS REVISION DATED MAY 1969, NASA LEFTCE OF MANNED SPACE FLIGHT.

REFERENCE NO. 2 .. STANDARD VALUES IN NUTRITION AND METABLE ISM 1953-ALBRITON E.C., FOITOR, WRIGHT AIR DEVELOPMENT CENTER, WRIGHT PATTERSUR AIR FOILE BASE, OLIO.

REFERENCE NO. 3 .. ANIMALS FOR RESEARCH - FRINCIPALS OF GRE EDING AND MANAGEMENT - 1963 LARE - PETTE R No. EDITOR, ACADEMIC PRESS.

REFERENCE NO. 4 .. COMPARATIVE ANIMAL PHYSICLOGY 1961 AND E DITIUN-PPCSSER, C.L. AND BROWN, F.A. JR. - W.B. JAUNDERS CO.

**** WASTE ITEM NO. 1 CAGES (4)

STATE SCLID

DENSITY 100.CO LBS/CU. FT. ATTRIBUTES METAL CUNTAMINATED

· ELEMENTS PRESENT ...

COMPOSITION STEEL

GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 540.00
DAILY RATE 6.00
BATCH SIZE 0.00

```
S/C SUBSYSTEM .... SMALL VERTEBRATES EXPERIMENTS
   GROUP KFY .... 3.4.3
** EQUIPMENT/EXPERIMENT NO. 7 .....INFLUENCE ON BIORYTHMS OF ANIMAL
                                  S
**** WASTE SOURCE NO. 1 ... INFLUENCE ON BIORYTHMS OF ANIMALS
***** WASTE ITEM NO. 2 .... CARBON DIOXIDE
         STATE ..... GAS
         DENSITY ..... 0.12 LBS/CU. FT.
         ATTRIBUTES ..... STABLE, DANGEROUS
         ELEMENTS PRESENT .. C,C
         COMPOSITION .....
                                         QUANTITY (LBS)
         GENERATION DATA ...
                  EXPT. TOTAL DAILY RATE
                                          14.40
                                           0.16
                                           0.00
                  BATCH SIZE
         RECLAMATION ACTION .. REDUCE
***** WASTE ITEM NO. 3 .... FECES, PAPER TOWEL, FECAL COLLECTION BAG
         STATE ..... SOLID
         DENSITY ..... 134.78 LBS/CU. FT.
         ATTRIBUTES ..... GRGANIC, PAPER, PLASTIC
         ELEMENTS PRESENT ...
         COMPOSITION ..... ORGANIC, CELLULOSE, TEFLON
         GENERATION DATA ...
                                         QUANTITY (LBS)
                  EXPT. TOTAL
                                          11.70
                  DAILY RATE
                                           0.13
                  BATCH SIZE
                                           0.00
         RECLAMATION ACTION .. WMS
***** WASTE ITEM NO. 4 .... FOCD DISH
         STATE ..... SOLID
         DENSITY ..... 8.64 LBS/CU. FT.
         ATTRIBUTES ..... PLASTIC CONTAMINATED
         ELEMENTS PRESENT ..
         COMPOSITION ..... POLYSTYRENE
                                         QUANTITY (LBS)
         GENERATION DATA ...
                  EXPT. TOTAL
                                           5,40
                                           0.06
                  DAILY RATE
                  BATCH SIZE
                                           0.00
```

```
S/C SUBSYSTEM .... SMALL VERTEBRATES EXPERIMENTS
    GROUP KEY ..... 3.4.3
** EQUIPMENT/EXPERIMENT NO. 7 .....INFLUENCE ON BIORYTHMS OF ANIMAL
★★★★ WASTE SOURCE NO. 1 .... INFLUENCE ON BIORYTHMS OF ANIMALS
****** WASTE ITEM NO. 5 .... WATER BOTTLE
          STATE ..... SOLID
          DENSITY ..... 46.66 LBS/CU. FT.
          ATTRIBUTES ..... GLASS CONTAMINATED
          ELEMENTS PRESENT ...
          COMPOSITION .... BOROSILICATES
          GENERATION DATA ...
                                          QUANTITY (LBS)
                   EXPT. TOTAL
                                            90.00
                   DAILY RATE
                                            1.00
                   BATCH SIZE
                                            0.00
          RECLAMATION ACTION .. WASH
***** WASTE ITEM NO. 6 .... WIPES, BACTERICIDE, HAIR
          STATE .... SOLID
          DENSITY ..... 6.07 LBS/CU. FT.
          ATTRIBUTES ..... PAPER, BACTER1CIDE, HAIR
          ELEMENTS PRESENT ..
          COMPOSITION ..... ORGANIG, CELLULOSE, BACTERICIDE
          GENERATION DATA ...
                                          QUANTITY (LBS)
                   EXPT. TOTAL
                                            18.90
                   DAILY RATE
                                            0.21
                   BATCH SIZE
                                            0.00
          RECLAMATION ACTION .. N/R
***** WASTE ITEM NO. 7 .... LIGHT BULB
          STATE ..... SOLID
          DENSITY ...... 13.82 LBS/CU. FT.
          ATTRIBUTES ..... GLASS FAILURE
          ELEMENTS PRESENT ..
          COMPOSITION ..... BOROSILICATES
          GENERATION DATA ...
                                          QUANTITY (LBS)
                   EXPT. TOTAL DAILY RATE
                                            0.06
                                            0.00
                   BATCH SIZE
                                            0.03
          RECLAMATION ACTION .. N/R
```

```
S/C SUBSYSTEM .... SMALL VERTEBRATES FXPERIMENTS
   GROUP KEY .... 3.4.3
** EQUIPMENT/EXPERIMENT NO. 7 .....INFLUENCE ON BIORYTHMS OF ANIMAL
**** WASTE SOURCE NO. 1 .... INFLUENCE ON BIORYTHMS OF ANIMALS
**** WASTE ITEM NO. 8 .... THERMISTER PROBE
         STATE ..... SQLID
         DENSITY .....
                             0.00 LBS/CU. FT.
         ATTRIBUTES ..... WIRE CONTAMINATED
         ELEMENTS PRESENT .. CU
         COMPOSITION .....
                                         QUANTITY (LBS)
         GENERATION DATA ....
                  EXPT. TOTAL
                                           1.08
                  DAILY RATE
                                           0.01
                  BATCH SIZE
                                           0.00
         RECLAMATION ACTION .. WIPE WITH BACTER.WIPES
***** WASTE ITEM NO. 9 .... ADHESIVE TAPE
         STATE ..... SOLID
         DENSITY ...... 32.83 LBS/CU. FT.
         ATTRIBUTES .... ADHESIVE, PAPER CONTAMINATED
         ELEMENTS PRESENT ...
         COMPOSITION ..... ADHESIVE, CELLULOSE
         GENERATION DATA ...
                                         QUANTITY (LBS)
                  EXPT. TOTAL
                                           0.36
                  DAILY RATE
                                           0.00
                  BATCH SIZE
                                           0.00
         RECLAMATION ACTION .. N/R
***** WASTE ITEM NO. 10 .... PACKAGING MATERIAL.
         STATE ..... SOLID
         DENSITY ..... C.O8 LBS/CU. FT.
         ATTRIBUTES ...... PAPER, PLASTIC CONTAMINATED
         ELEVENTS PRESENT ...
         COMPOSITION ..... CELLULOSE, POLYETHELENE
         GENERATION DATA ...
                                         QUANTITY (LBS)
                  EXPT. TOTAL
                                           1.80
                  DAILY RATE
                                           0.02
                  BATCH SIZE
                                           0.00
         RECLAMATION ACTION .. REUSE AS IS
```

S/C SUBSYSTEM SMALL VERIEBRATES EXPERIMENTS GROUP KEY 3.4.3

** EQUIPMENT/EXPERIMENT NO. 8 THE ROLE OF GRAVITY IN HIBERNATI NG

ASSOCIATED FPE NUMBER ...

S/C AREAS BIC-LABORATORY ANIMAL HOUSING

*** WASTE SOURCE NO. 1 THE ROLE OF GRAVITY IN HIBERNATION

DOCUMENT NO.

REFERENCE NO. ' 1 .. EXPERIMENT PROGRAM FOR EXTENDED EARTH OR BITAL MISSIONS REVISION DATED MAY 1969. NASA OFFICE OF MANNED SPACE FLIGHT.

REFERENCE NO. 2 .. GROWTH INCLUDING REPRODUCTION AND MORPHO LOGICAL DEVEL., BIO. HANDBOOKS, 1962, EDITE D BY ALTMAN, P. L., AND DITTMER, D.S., FED. O F AMERICAN SOCIETIES FOR EXPERIMENTAL BI

REFERENCE NO. 3 .. COMPARATIVE ANIMAL PHYSIOLOGY 2ND EDITIO N 1962-PROSSER, Colo AND BROW, F.A., JR.-W.B. SAUNDERS & CO.

REFERENCE NO. 4 .. STANDARD VALUES IN NUTRITION AND METABOL ISM - ALBRITTON, E.C., EDITOR 1953-WRIGH T AIR DEVELOPMENT CENTER, WRIGHT PATTERS ON AFB, OHIO.

***** WASTE ITEM NO. 1 CAGES

STATE STERILIZE

DENSITY 100.00 (BS/CU. FT. ATTRIBUTES METAL CONTAMINATED

ELEMENTS PRESENT ..

COMPOSITION STEEL

GENERATION DATA ... QUANTITY (LBS) EXPT. TOTAL 9.00 DAILY RATE 0.00 BATCH SIZE 9.00

RECLAMATION ACTION .. STERILIZE

S/C SUBSYSTEM SMALL VERTEBRATES EXPERIMENTS
GROUP KEY 3.4.3

** EQUIPMENT/EXPERIMENT NO. 8THE ROLE OF GRAVITY IN HIBERNATION

**** WASTE SOURCE NO. 1 THE ROLE OF GRAVITY IN HIBERNATION

**** WASTE ITEM NO. 2 CARBON DIOXIDE

STATE GAS

DENSITY C.12 LBS/CU. FT. ATTRIBUTES STABLE, DANGEROUS

ELEMENTS PRESENT .. C,C

COMPOSITION

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 9.00
DAILY RATE 0.00
BATCH SIZE 9.00

RECLAMATION ACTION .. REDUCE

***** WASTE ITEM NO. 3 PACKAGING MATERIAL

STATE SOLID

DENSITY C.08 LBS/CU. FT. ATTRIBUTES PAPER CONTAMINATED

ELEMENTS PRESENT ...

COMPOSITION CELLULOSE

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.25
DAILY RATE 0.00
BATCH SIZE 0.01

RECLAMATION ACTION .. REUSE AS IS

S/C SUBSYSTEM PLANT SPECIMENS (BIO E) GROUP KEY 3.4.4

BASIC FUNCTION PERFORM MISSION TASKS FUNCTIONAL REQUIREMENT BIOLOGICAL SCIENCES AND BIOTECHN OLOGY STUDIES

** EQUIPMENT/EXPERIMENT NO. 1 PLANT RESPONSES FROM O TO 1G

ASSOCIATED FPE NUMBER ... 5.10 S/C AREAS AGRICULTURAL STUDY AREA REMOTE DOCKABLE MODULE

**** WASTE SOURCE NO. 1 PLANT RESPONS FROM O TO 1G

DOCUMENT NO. 3.4.4.1.1*

REFERENCE NO. 1 .. EXPERIMENT PROGRAM FOR EXTENDED EARTH OR BITAL MISSIONS, REVISION NO. 1, SEPTEMBE R I, 1969. NASA OMSF.

***** WASTE ITEM NO. 1 FILM STATE SOLID

DENSITY 83.00 LBS/CU. FT.

ATTRIBUTES PLASTIC

ELEMENTS PRESENT ..

COMPOSITION SILVER EMULSION

GENERATION DATA ... QUANTITY (LBS) EXPT. TOTAL DAILY RATE 3.00 0.05 BATCH SIZE 0.05

RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 2 FILM WRAPPINGS

STATE SOLID

DENSITY 72.00 LBS/CU. FT.

ATTRIBUTES SHEETS

ELEMENTS PRESENT ..

COMPOSITION CELLULOSE

GENERATION DATA ... QUANTITY (LBS) EXPT. TOTAL 0.30 DAILY RATE 0.00 BATCH SIZE

0.02

```
S/C SUBSYSTEM .... PLANT SPECIMENS (BIO E)
   GROUP KEY .... 3.4.4
** EQUIPMENT/EXPERIMENT NO. 1 .....PLANT RESPONSES FROM 0 TO 1G
**** WASTE SOURCE NO. 1 .... PLANT RESPONS FROM O TO 1G
***** WASTE ITEM NO. 3 .... VERMICULITE
        STATE ..... SOLID
        DENSITY ..... 10.00 LBS/CU. FT.
        ATTRIBUTES ..... PARTICLES
        ELEMENTS PRESENT ..
        COMPOSITION ..... SI 02, MGO AL2 03, FE2 03 K20, CAO, H20
        GENERATION DATA ...
                                        QUANTITY (LBS)
                 EXPT. TOTAL
                                          10.00
                 DAILY RATE
                                          0.00
                 BATCH SIZE
                                          3.30
        RECLAMATION ACTION .. STERILIZE
***** WASTE ITEM NO. 4 .... TISSUE FIXATIVES
        STATE ..... LIQUID
        DENSITY ..... 70.00 LBS/CU. FT.
        ATTRIBUTES .... CHEMICALS
        ELEMENTS PRESENT ...
        COMPOSITION ..... CHROMIC ANHYDRIDE, CH3 COOH, FORMALIN
        GENERATION DATA ...
                                        QUANTITY (LBS)
                 EXPT. TOTAL
                                          0.50
                  DAILY RATE
                                          0.00
                 BATCH SIZE
                                          0.16
        RECLAMATION ACTION .. N/R
***** WASTE ITEM NO. 5 .... CONTAINERS
        STATE ..... SOLID
        DENSITY ..... 60.00 LBS/CU. FT.
        ATTRIBUTES .... BOX
        ELEMENTS PRESENT ..
        COMPOSITION ..... COPOLYVINYL CHLORIDE, ACETATE
        GENERATION DATA ...
                                        QUANTITY (LBS)
                  EXPT. TOTAL
                                           4.00
                  DAILY RATE
                                           0.00
                 BATCH SIZE
                                          1.30
        RECLAMATION ACTION .. CLEAN
```

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S/C SUBSYSTEM .... PLANT SPECIMENS (BIO E)
     GROUP KEY .... 3.4.4
  ** EQUIPMENT/EXPERIMENT NO. 1 .....PLANT RESPONSES FROM 0 TO 1G
  **** WASTE SOURCE NO. I ... PLANT RESPONS FROM O TO 1G
  **** WASTE ITEM NO. 6 ... PLANT MATTER
           STATE ..... SOLID
           DENSITY ..... 70.00 LBS/CU. FT.
           ATTRIBUTES .... ORGANIC BITS
           ELEMENTS PRESENT ..
           COMPOSITION ..... CELLULOSE, TRACE MINERALS
           GENERATION DATA ...
                                         QUANTITY (LBS)
                   EXPT. TOTAL
                                            0.50
                   DAILY RATE
                                            0.00
                   BATCH SIZE
                                            0.16
           RECLAMATION ACTION .. MULCH
****** WASTE ITEM NO. 7 .... SCALPEL
           STATE ..... SOLID
           DENSITY ..... 488.00 LBS/CU. FT.
           ATTRIBUTES .... FLAT
           ELEMENTS PRESENT ..
           COMPOSITION ..... STEEL
           GENERATION DATA ...
                                         QUANTITY (LBS)
                   EXPT. TOTAL
                                            1.00
                   DATLY RATE
                                            0.00
                   BATCH SIZE
                                            0.30
           RECLAMATION ACTION .. CLEAN
```

S/C SUBSYSTEM PLANT SPECIMENS (BIO E) GROUP KEY 3.4.4 ** EQUIPMENT/EXPERIMENT NO. 2 PEA SEEDLING GROWTH IN ORBIT ASSOCIATED FPE NUMBER ... 5.10 S/C AREAS AGRICULTURAL STUDY AREA REPOTE DOCKABLE MODULE **** WASTE SOURCE NO. 1 PEA SEEDLING GROWTH IN ORBIT DOCUMENT NO. 3.4.4.2.1* REMARKS (1) FOR OPERATIONAL DESCRIPTION SEE DOCUMENT NO. A- 3.4.4.1.1 ***** WASTE ITEM NO. 1 ... SEED STATE SOLID DENSITY 70.00 LBS/CU. FT. ATTRIBUTES ORGANIC ELEMENTS PRESENT ... COMPOSITION CHO GENERATION DATA ... QUANTITY (LBS) EXPT. TOTAL DAILY RATE 0.10 0.00 BATCH SIZE 0.03 RECLAMATION ACTION ... N/R ***** WASTE ITEM NO. 2 ... WATER VAPOR STATE GAS DENSITY 0.05 LBS/CU. FT. ATTRIBUTES ELEMENTS PRESENT .. COMPOSITION WATER QUANTITY (LBS) GENERATION DATA ... EXPT. TOTAL DAILY RATE 0.40 0.01 BATCH SIZE 0.01 RECLAMATION ACTION .. ADSORB ***** WASTE ITEM NO. 3 ... PLANT MATTER STATE SOLID DENSITY 7C.OO LBS/CU. FT. ATTRIBUTES ORGANIC ELEMENTS PRESENT .. COMPOSITION (C6 H10 O5)M, CELLULOSE GENERATION DATA ... QUANTITY (LBS) EXPT. TOTAL 0.50 DAILY RATE 0.00 BATCH SIZE 0.17

RECLAMATION ACTION .. MULCH

S/C SUBSYSTEM PLANT SPECIMENS (BIO E) GROUP KEY 3.4.4

***** WASTE ITEM NO. 4 VERMICULITE

STATE SOLID

DENSITY 10.00 LBS/CU. FT.

ATTRIBUTES MINERAL

ELEMENTS PRESENT ..

COMPOSITION

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 10.00 DAILY RATE 0.00 BATCH SIZE 10.00

RECLAMATION ACTION .. STERILIZE

***** WASTE ITEM NO. 5 FILM

STATE SOLID

DENSITY 83.00 LBS/CU. FT.

ATTRIBUTES PLASTIC

ELEMENTS PRESENT ..

COMPOSITION ACLAR

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.10
DAILY RATE 0.00
BATCH SIZE 0.03

RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 6 FILM WRAPPINGS

STATE SOLID

DENSITY 72.00 LBS/CU. FT.

ATTRIBUTES PAPER

ELEMENTS PRESENT ..

COMPOSITION CELLULOSE

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.30
DAILY RATE 0.00
BATCH SIZE 0.10

S/C SUBSYSTEM PLANT SPECIMENS (BIO E) GROUP KEY 3.4.4

** EQUIPMENT/EXPERIMENT NO. 2PFA SEEDLING GROWTH IN ORBIT **** WASTE SOURCE NO. 1 ... PEA SEEDLING GROWTH IN CRBIT

***** WASTE ITEM NO. 7 AUXINS

STATE LIQUID

DENSITY 7C.00 LBS/CU. FT. 'ATTRIBUTES CHEMICAL

ELEMENTS PRESENT ..

COMPOSITION INDOLE ACETIC ACID

QUANTITY (LBS) GENERATION DATA ... EXPT. TOTAL 0.10 0.00 DAILY RATE

BATCH SIZE 0.03

RECLAMATION ACTION .. N/R

***** WASTE_ITEM NO. 8 GLASSWARE

STATE SOLID

DENSITY 16C.00 LBS/CU. FT.

ATTRIBUTES MINERAL

ELEMENTS PRESENT ..

COMPOSITION SI 02

GENERATION DATA ... QUANTITY (LBS)

> EXPT. TOTAL 00.8 DAILY RATE 0.00 BATCH SIZE 8.00

RECLAMATION ACTION .. CLEANSE

S/C SUBSYSTEM PLANT SPECIMENS (BIO E) GROUP KEY 3.4.4 ****************************** ** EQUIPMENT/EXPERIMENT NO. 3 PLANT MORPHOGENESS NDER WEIGHTL ESSNESS ASSOCIATED FPE NUMBER ... 5.10 S/C AREAS AGRICULTURAL STUDY AREA REMOTE DOCKABLE MODULE **** WASTE SOURCE NO. 1 PLANT MORPHOGENESIS UNDER WEIGTLESSNESS DOCUMENT NO. 3.4.4.3.1* REMARKS (1) FOR OPERATIONAL DESCRIPTION SEE DOCUMENT NO. A- 3.4.4.1.1 ***** WASTE ITEM NO. 1 AGAR STATE SOLID DENSITY 75.00 LBS/CU. FT. ATTRIBUTES GEL **ELEMENTS PRESENT ..** COMPOSITION SO4 CA C6 H12 O6 QUANTITY (LBS) GENERATION DATA ... 4.00 EXPT. TOTAL DAILY RATE 0.06 BATCH SIZE 0.06 RECLAMATION ACTION .. N/R ***** WASTE ITEM NO. 2 FILM STATE SOLID DENSITY 83.00 LBS/CU. FT. ATTRIBUTES PLASTIC ELEMENTS PRESENT .. COMPOSITION AG. EMULSION ACLAR GENERATION DATA ... QUANTITY (LBS) EXPT. TOTAL 0.30 DAILY RATE 0.00 0.10 BATCH SIZE RECLAMATION ACTION .. N/R ***** WASTE ITEM NO. 3 FILM WRAPPINGS STATE SOLID DENSITY 70.00 LBS/CU. FT.

ATTRIBUTES SHEETS ELEMENTS PRESENT .. COMPOSITION CELLULOSE QUANTITY (LBS) GENERATION DATA ...

EXPT. TOTAL 0.20 0.00 DAILY RATE BATCH SIZE 0.07

S/C SUBSYSTEM PLANT SPECIMENS (BIO E) 3ROUP KEY 3.4.4 ** EQUIPMENT/EXPERIMENT NO. 3PLANT MORPHCGENESS NDER WEIGHTL **ESSNESS** **** WASTE SDURCE NO. 1 PLANT MORPHOGENESIS UNDER WEIGTLESSNESS ***** WASTE ITEM NO. 4 TISSUE FIXATIVES STATE LICUID DENSITY 112.00 LBS/CU. FT. ATTRIBUTES CHEMICALS ELEMENTS PRESENT .. COMPOSITION CHROMIC ANHYDRIDE, CH3 COOH, FORMALIN GENERATION DATA ... QUANTITY (LBS) EXPT. TOTAL 0.30 DAILY RATE 0.00 BATCH SIZE 0.10 RECLAMATION ACTION .. COLLECT **** WASTE ITEM NO. 5 ... PLANT MATTER STATE SOLID DENSITY 50.00 LBS/CU. FT. ATTRIBUTES DRGANIC ELEMENTS PRESENT .. COMPOSITION CHCN GENERATION DATA ... QUANTITY (LBS) EXPT. TOTAL 0.50 DAILY RATE 0.01 BATCH SIZE 0.01 RECLAMATION ACTION .. MULCH ***** WASTE ITEM NO. 6 ... SCALPEL BLADE STATE SOLID DENSITY 488.00 LBS/CU. FT. ATTRIBUTES FLAT **ELEMENTS PRESENT ...** COMPOSITION STEEL GENERATION DATA ... QUANTITY (LBS) EXPT. TOTAL 1.00

0.00

0.30

DAILY RATE

BATCH SIZE

S/C SUBSYSTEM PLANT SPECIMENS (BIO E)
GROUP KEY 3.4.4

** EQUIPMENT/EXPERIMENT NO. 3PLANT MORPHOGENESS NDER WEIGHTL ESSNESS

**** WASTE SOURCE NO. 1 PLANT MORPHOGENESIS UNDER WEIGTLESSNESS

**** WASTE ITEM NO. 7 ... CONTAINER

STATE SOLID

DENSITY 68.60 LBS/CU. FT.

ATTRIBUTES BOX

ELEMENTS PRESENT ..

COMPOSITION PLASTIC, COPOLYVINYL CHECRIDE, ACETATE

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 6.00
DAILY RATE 0.00
BATCH SIZE 2.00

RECLAMATION ACTION .. WASH, STERILIZE

****** WASTE ITEM NO. 8 PLANT NUTRIENTS

STATE LIQUID

DENSITY 75.00 LBS/CU. FT.

ATTRIBUTES SOLUTION

ELEMENTS PRESENT ..

COMPOSITION CA NO3 FEZ SO4, (C4 H4 O6)3 MGSO4, KCL, KNO

3,KH2 PO4,NAH2 PO4, ETC.

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.20
DAILY RATE 0.00
BATCH SIZE 0.07

RECLAMATION ACTION .. COLLECT

```
S/C SUBSYSTEM .... PLANT SPECIMENS (BIO E)
   3ROUP KEY ..... 3.4.4
** EQUIPMENT/EXPERIMENT NO. 4 ..... GAMETO-MORPHOGENESIS OF PTERIS G
                                  AMETOPHYTES
         ASSOCIATED FPE NUMBER ... 5.10
         S/C AREAS ..... AGRICULTURAL STUDY AREA
                           REMOTE DOCKABLE MODULE
**** WASTE SOURCE NO. 1 .... GAPOTO-MORPHOGENESIS OF PTERIS GAMETOPHY
                           TES
         DOCUMENT NO. .... 3.4.4.4.1*
         REMARKS ( 1) ..... FOR OPERATIONAL DESCRIPTION SEE COCUMENT
                           NO. A- 3.4.4.1.1
**** WASTE ITEM NO. 1 .... FILM
         STATE ..... SOLID
         DENSITY ..... 83.00 LBS/CU. FT.
         ATTRIBUTES .... PLASTIC
         ELEMENTS PRESENT ..
         COMPOSITION ..... SILVER EMULSION ACLAR
         GENERATION DATA ...
                                        QUANTITY (LBS)
                  EXPT. TOTAL
                                          0.50
                  DAILY RATE
                                          0.00
                  BATCH SIZE
                                          0.00
         RECLAMATION ACTION .. N/R
***** WASTE ITEM NO. 2 .... FILM WRAPPING
         STATE ..... SOLID
         DENSITY ..... 7C.00 LBS/CU. FT.
         ATTRIBUTES ..... SHEETS
         ELEMENTS PRESENT ..
         COMPOSITION ..... CELLULOSE
         GENERATION DATA ...
                                        QUANTITY (LBS)
                  EXPT. TOTAL
                                           0.70
                  STAR YLIAC
                                           0.00
                                          0.10
                  BATCH SIZE
         RECLAMATION ACTION .. N/R
**** WASTE ITEM NO. 3 .... DATA SHEETS
         STATE ..... SOLID
         DENSITY ..... 70.00 LBS/CU. FT.
         ATTRIBUTES .... SHEETS
         ELEMENTS PRESENT ..
         COMPOSITION ..... CELLULOSE
         GENERATION DATA ...
                                        QUANTITY (LBS)
                  EXPT. TOTAL
                                           0.30
                  DAILY RATE
                                          0.00
                  BATCH SIZE
                                          0.00
```

S/C SUBSYSTEM PLANT SPECIMENS (BIO E) GROUP KEY 3.4.4

** EQUIPMENT/EXPERIMENT NO. 4GAMETO-MORPHOGENESIS OF PTERIS G AMETOPHYTES

**** WASTE SOURCE NO. 1 GAYOTO-MORPHOGENESIS OF PTERIS GAMETOPHY
TES

***** WASTE ITEM NO. 4 TISSUE FIXATIVES

STATE LIQUID

DENSITY 70.00 LBS/CU. FT.

ATTRIBUTES CHEMICAL

ELEMENTS PRESENT ..

COMPOSITION CHRONIC ANHYDRIDE, CH3 COOH. FORMALIN

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.50 DAILY RATE 0.00 BATCH SIZE 0.50

RECLAMATION ACTION .. COLLECT

```
S/C SUBSYSTEM .... PLANT SPECIMENS (BIO E)
   GROUP KEY ..... 3.4.4
** E JUIPMENT/EXPERIMENT NO. 5 ..... ROLE OF AUXIN IN THE DEVELOPING
                                  WHEAT SEEDLING
         ASSOCIATED FPE NUMBER ... 5.10
         S/C AREAS ...... AGRICULTURAL STUDY AREA
                           REPOTE DOCKABLE MODULE
**** WASTE SOURCE NO. 1 ... RCLE OF AUXIN IN THE DEVELOPING WHEAT SE
                           EDLINGS
         DOCUMENT NO. ..... 3.4.4.5.1*
         REMARKS ( 1) ..... FOR OPERATIONAL DESCRIPTION SEE COCUMENT
                            NO. A- 3.4.4.1.1
***** WASTE ITEM NO. 1 .... RADIOACTIVE ISOTOPES
         STATE ..... LICUID
         DENSITY ..... 63.00 LBS/CU. FT.
         ATTRIBUTES .... CHEMICALS
         ELEMENTS PRESENT ..
         COMPOSITION ..... C14 - GLUCOSE H3
         GENERATION DATA ...
                                         QUANTITY (LBS)
                  EXPT. TOTAL
                                           0.10
                  DAILY RATE
                                           0.00
                  BATCH SIZE
                                           0.03
         RECLAMATION ACTION .. N/R
***** WASTE ITEM NO. 2 .... FILM
         STATE ..... SOLID
         DENSITY ..... 83.00 LBS/CU. FT.
         ATTRIBUTES ..... PLASTIC
         ELEMENTS PRESENT ..
         COMPOSITION ..... ACLAR-SILVER EMULSION
         GENERATION DATA ...
                                         QUANTITY (LBS)
                  EXPT. TOTAL
                                           0.20
                  DAILY RATE
                                           0.00
                  BATCH SIZE
                                           0.07
         RECLAMATION ACTION .. N/R
***** WASTE ITEM NO. 3 .... TISSUE FIXATIVES
         STATE ..... LIQUID
         DENSITY ..... 7G.00 LBS/CU. FT.
         ATTRIBUTES ..... CHEMICALS
         ELEMENTS PRESENT ..
         COMPOSITION ...... CHROMIC ANHYDRIDE, CH3 COOH, FORMALIN
         GENERATION DATA ...
                                        QUANTITY (LBS)
                  EXPT. TOTAL
                                           0.10
                  DAILY RATE
                                           0.00
                  BATCH SIZE
                                           0.03
```

RECLAMATION ACTION .. COLLECT

PACE 326

```
S/C SUBSYSTEM .... PLANT SPECIMENS (BIO E)
   GROUP KEY ..... 3.4.4
** EQUIPMENT/EXPERIMENT NO. 5 ....ROLE OF AUXIN IN THE DEVELOPING
                                 WHEAT SEEDLING
**** WASTE SOURCE NO. 1 ... ROLE OF AUXIN IN THE DEVELOPING WHEAT SE
                          EDLINGS
**** WASTE ITEM NO. 4 .... CONTAINERS
         STATE ..... SOLID
         DENSITY ..... 6.00 LBS/CU. FT.
         ATTRIBUTES ..... PLASTIC
         ELEMENTS PRESENT ...
         COMPOSITION ..... COPOLYVINYL CHLORIDE, ACETATE
         GENERATION DATA ...
                                        QUANTITY (LBS)
                 EXPT. TOTAL
                                          24.00
                 DAILY RATE
                                           0.00
                  BATCH SIZE
                                           8.00
        RECLAMATION ACTION .. CLEAN, STERILIZE
***** WASTE ITEM NO. 5 .... VERMICULITE
         STATE ..... SOLID
         DENSITY ...... 10.00 LBS/CU. FT.
         ATTRIBUTES ..... MINERAL
         ELEMENTS PRESENT ..
         COMPOSITION ..... SIO2 , MGO AL2 O3, FE2 O3 K20, CAO, H20 (
         GENERATION DATA ...
                                        QUANTITY (LBS)
                 EXPT. TOTAL
                                           5.00
                  DAILY RATE
                                           0.00
                  BATCH SIZE
                                           1.70
         RECLAMATION ACTION .. SIFT, CLEAN
***** WASTE ITEM NO. 6 .... DATA SHEETS AND FILM PAPER
         STATE ..... SOLID
         DENSITY ...... 70.00 LBS/CU. FT.
         ATTRIBUTES ..... CELLULOSE
         ELEMENTS PRESENT ..
         COMPOSITION ..... CELLULOSE
         GENERATION DATA ...
                                        QUANTITY (LBS)
                 EXPT. TOTAL
                                          0.20
                  DAILY RATE
                                          0.00
                  BATCH SIZE
                                           0.07
```

S/C SUBSYSTEM PLANT SPECIMENS (BIO E) GROUP KEY 3.4.4 ** EQUIPMENT/EXPERIMENT NO. 5ROLE OF AUXIN IN THE DEVELOPING WHEAT SEEDLING **** WASTE SOURCE NO. 1 RCLE OF AUXIN IN THE DEVELOPING WHEAT SE EDLINGS ***** WASTE ITEM NO. 7 VARIOUS CHEMICALS IE AUXINS, ENZYMES, FTC. STATE LIGUID DENSITY 68.00 LBS/CU. FT. ATTRIBUTES CHEMICAL ELEMENTS PRESENT .. COMPOSITION P, K, CA MG S, B, CU, FE MN, ZN PEROXIDASE, IN DOLE ACETATE GENFRATION DATA ... QUANTITY (LBS) EXPT. TOTAL 0.30 DAILY RATE 0.00 BATCH SIZE 0.00 RECLAMATION ACTION .. N/R

****** WASTE ITEM NO. 8 PLANT MATTER AND DEBRIS
STATE SOLID
DENSITY 22.00 LBS/CU. FT.
ATTRIBUTES FIBRCUS
ELEMENTS PRESENT ..
COMPOSITION CELLULOSE
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.40
DAILY RATE 0.00
BATCH SIZE 0.14

```
S/C SUBSYSTEM .... PLANT SPECIMENS (BIO E)
   GROUP KEY .... 3.4.4
************************
** EQUIPMENT/EXPERIMENT NO. 6 ..... STRESS IN LAND PLANT EVOLUTION
         ASSOCIATED FPE NUMBER ... 5.10
         S/C AREAS ..... AGRICULTURAL STUDY AREA
                            REPOTE DOCKABLE MODULE
**** WASTE SOURCE NO. 1 .... STRESS IN LAND PLANT EVOLUTION
         DOCUMENT NO. ..... 3.4.4.6.1*
         REMARKS ( 1) ..... FOR OPERATIONAL DESCRIPTION SEE DOCUMENT
                             NC. A- 3.4.4.1.1
***** WASTE ITEM NO. , 1 ... VERMICULATE
         STATE ..... SOLID
         DENSITY ....... 10.00 LBS/CU. FT.
         ATTRIBUTES ..... MINERAL
         ELEMENTS PRESENT ..
         COMPOSITION ..... SI-O2, MGD ALZ O3, FEZ O3 K20, CAO, K20
         GENERATION DATA ...
                                          QUANTITY (LBS)
                                             5.00
                  EXPT. TOTAL
                  DAILY RATE
                                             0.00
                  BATCH SIZE
                                             5.00
         RECLAMATION ACTION .. SIFT, CLEAN
***** WASTE ITEM NO. 2 .... CONTAINERS, TRAYS
         STATE ..... SOLID
         DENSITY ..... 6.00 LBS/CU. FT.
         ATTRIBUTES .... PLASTIC
         ELEMENTS PRESENT ..
         COMPOSITION ..... COPOLYVINYL CHLORIDE, ACETATE
         GENERATION DATA ...
                                          QUANTITY (LBS)
                  EXPT. TOTAL DAILY RATE
                                            10.00
                                             0.00
                                            10.00
                  BATCH SIZE
         RECLAMATION ACTION .. WASH
***** WASTE ITEM NO. 3 ... POLYETHYLENE
         STATE ..... SOLID
         DENSITY ..... 56.00 LBS/CU. FT.
         ATTRIBUTES ..... FILM
         ELEMENTS PRESENT ..
         COMPOSITION ..... (CH2.CH2)
                                          QUANTITY (LBS)
         GENERATION DATA ...
                  EXPT. TOTAL
                                             2.00
                   DAILY RATE
                                             0.00
                   BATCH SIZE
                                             0.70
         RECLAMATION ACTION .. N/R
```

S/C SUBSYSTEM PLANT SPECIMENS (BIO E) GROUP KEY 3.4.4 ** EQUIPMENT/EXPERIMENT NO. 6 STRESS IN LAND PLANT EVOLUTION **** WASTE SOURCE NO. 1 STRESS IN LAND PLANT EVOLUTION ***** WASTE ITE" NO. 4 ... PLANT MATTER STATE SOLID DENSITY 7G.00 LBS/CU. FT. ATTRIBUTES ORGANIC ELEMENTS PRESENT .. COMPOSITION CHNO GENERATION DATA ... QUANTITY (LBS) EXPT. TOTAL 0.50 DAILY RATE 0.00 BATCH SIZE 0.17 RECLAMATION ACTION .. PULCH ***** WASTE ITEM NO. 5 RADIO ACTIVE ISOTOPES STATE LIQUID DENSITY 53.00 LBS/CU. FT. ATTRIBUTES ALCOHOL ELEMENTS PRESENT .. COMPOSITION (CH3O) (OH) C6 H3 CH - CH CH2 OH GENERATION DATA ... QUANTITY (LBS) EXPT. TOTAL 0.05 DAILY RATE 0.00 BATCH SIZE 0.02 RECLAMATION ACTION .. N/R ***** WASTE ITEM NO. 6 FILM STATE SOLID DENSITY 83.00 LBS/CU. FT. ATTRIBUTES PLASTIC ELEMENTS PRESENT .. COMPOSITION ACLAR GENERATION DATA ... QUANTITY (LBS) EXPT. TOTAL 0.50 DAILY RATE 0.01 BATCH SIZE 0.01

S/C SUBSYSTEM PLANT SPECIMENS (BIO E)
GROUP KEY 3.4.4

** EQUIPMENT/FXPERIMENT NO. 6STRESS IN LAND PLANT EVOLUTION **** WASTE SOURCE NO. 1 STRESS IN LAND PLANT EVOLUTION *********************

***** WASTE ITEM NO. 7 ... TISSUE FIXATIVE

STATE LIGUID

DENSITY 7C.00 LBS/CU. FT.

ATTRIBUTES CHEMICAL

ELEMENTS PRESENT ..

COMPOSITION CHROMIC ANHYDRIDE

GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.10

DAILY RATE 0.00
BATCH SIZE 0.03

RECLAMATION ACTION .. COLLECT

S/C SUBSYSTEM PLANT SPECIMENS (BIO E) 3ROUP KEY 3.4.4

** EQUIPMENT/EXPERIMENT NO. 7 CIRCADIAN RYTHMS IN PLANTS

ASSOCIATED FPE NUMBER ... 5.10
S/C AREAS AGRICULTURAL STUDY AREA
REMOTE DOCKABLE MODULE

*** WASTE SOURCE NO. I CIRCADIAN RYTHMS IN PLANTS

DOCUMENT NO. 3.4.4.7.1*

REMARKS (1) FOR OPERATIONAL DESCRIPTION SEE DOCUMENT NO. A- 3.4.4.8.1

**** WASTE ITEM NO. 1 PLANT MATTER

STATE SOLID

DENSITY 50.00 LBS/CUa FT.

ATTRIBUTES ORGANIC

ELEMENTS PRESENT ...

COMPOSITION CHEN

GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 1.00
DAILY RATE 0.01
BATCH SIZE 0.01

RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 2 FILM

STATE SOLID

DENSITY 83.00 LBS/CU. FT.

ATTRIBUTES PLASTIC

ELEMENTS PRESENT ..

COMPOSITION SILVER EMULSION ACLAR

GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.60

DAILY RATE 0.05
BATCH SIZE 0.05

RECLAMATION ACTION ...

***** WASTE ITEM NO. 3 FILM WRAPPINGS

STATE SOLID

DENSITY 70.00 LBS/CU. FT.

ATTRIBUTES PAPER

ELEMENTS PRESENT ..

COMPOSITION CELLULOSE

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.60
DAILY RATE 0.01
BATCH SIZE 0.01

S/C SUBSYSTEM PLANT SPECIMENS (BIO E) GROUP KEY 3.4.4

** EQUIPMENT/EXPERIMENT NO. 7CIRCADIAN RYTHMS IN PLANTS **** WASTE SOURCE NO. 1 CIRCADIAN RYTHMS IN PLANTS

***** WASTE ITEM NO. 4 TISSUE FIXATIVE

STATE LIQUID

DENSITY 70.00 LBS/CU. FT.

ATTRIBUTES CHEMICAL

ELEMENTS PRESENT ..

COMPOSITION CHROMIC ANHYDRIDE, CH3COOH, FORMALIN

QUANTITY (LBS) GENERATION DATA ...

EXPT. TOTAL 0.30 DAILY RATE 0.00 BATCH SIZE 0.10

RECLAMATION ACTION .. COLLECT

***** WASTE ITEM NO. 5 DATA SHEETS

STATE SOLID

DENSITY 70.00 LBS/CU. FT.

ATTRIBUTES SHEET

ELEMENTS PRESENT ..

COMPOSITION CELLULOSE

QUANTITY (LBS) GENERATION DATA ...

EXPT. TOTAL 0.05 DAILY RATE 0.00 BATCH SIZE 0.00

RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 6 VERMIGULITE

STATE SOLID

DENSITY 10.00 LBS/CU. FT.

ATTRIBUTES MINERAL

ELEMENTS PRESENT ...

COMPOSITION SIQ2, MGO AL2 Q3, FE2 Q3, K2O CAO, H2O

GENERATION DATA ... QUANTITY (LBS) EXPT. TOTAL 7.00 DAILY RATE 0.08

BATCH SIZE 0.08

RECLAMATION ACTION .. SIFT, CLEAN

S/C SUBSYSTEM PLANT SPECIMENS (BIO E)
SROUP KEY 3.4.4

***** WASTE ITEM NO. 7 BOX
STATE SOLID

DENSITY 56.00 LBS/CU. FT.

ATTRIBUTES PLASTIC

ELEMENTS PRESENT ..

COMPOSITION COPOLYVINYL CHLORIDE, ACETATE GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 2.00 DAILY RATE 0.00

BATCH SIZE 0.00

RECLAMATION ACTION .. WASH

```
S/C SUBSYSTEM .... PLANT SPECIMENS (BIO E)
    3ROUP KEY .... 3.4.4
** EQUIPMENT/EXPERIMENT NO. 8 ..... ALGAE, DUCKWEED IN OG
         ASSOCIATED FPE NUMBER ... 5.10
         S/C AREAS ..... AGRICULTURAL STUDY AREA
                           REMOTE DOCKABLE MODULE
**** WASTE SOURCE NO. 1 .... ALGAE, DUCKWEED IN OG
         DOCUMENT NO. ..... 3.4.4.8.1
         REFFRENCE NO. 1 .. EXPERIMENT PROGRAM FOR EXTENDED EARTH OR
                           BITAL MISSIONS, REVISION NO. 1, SEPTEMBE
                           R 1, 1969, NASA DMSF.
         REFERENCE NO. 2 .. KRAUSS, R.W. AND THOMAS, W.H. - THE GROW
                           TH AND INORGANIC NUTRITION OF SCENEDESM
                           US OBLIQUUS IN MASS CULTURE. PLANT PHYSI
                           OL. 29, 205-2114, 1954.
         REFERENCE NO. 3 .. USAF TECHNICAL OBJECTIVE 00328 (TOD 70-3
                           ) BIOREGENERATIVE LIFE SUPPORT INVESTIGA
                           TIONS, NOVEMBER 1968.
***** WASTE ITEM NO. 1 ... WASTE WATER
         STATE ..... LIQUID
         DENSITY ..... 0.00 LBS/CU. FT.
         ATTRIBUTES .....
         ELEMENTS PRESENT ..
         COMPOSITION .....
         GENERATION DATA ...
                                         QUANTITY (LBS)
                  EXPT. TOTAL
                                           10.00
                  DAILY RATE
                                            0.16
                  BATCH SIZE
                                            0.16
         RECLAMATION ACTION .. FILTER - DISTILL
***** WASTE ITEM NO. 2 .... PLANT MATTER
         STATE ..... SOLID
         DENSITY ..... 0.00 LBS/CU. FT.
         ATTRIBUTES ..... ORGANIC
         ELEMENTS PRESENT ..
         COMPOSITION ..... COHN
         GENERATION DATA ...
                                         QUANTITY (LBS)
                  EXPT. TOTAL
                                           0.00
                  DAILY RATE
                                           0.00
                  BATCH SIZE
                                          0.00
```

RECLAMATION ACTION .. MULCH

S/C SUBSYSTEM PLANT SPECIMENS (BIO E) GROUP KEY 3.4.4 ** EJUIPMENT/EXPERIMENT NO. 8ALGAE, DUCKWEED IN OG **** WASTE SOURCE NO. 1 ALGAE, DUCKWEED IN OG ***** WASTE ITEM NO. 3 MICROSCOPE SLIDES STATE SOLID DENSITY 160.00 LBS/CU. FT. ATTRIBUTES GLASS ELEMENTS PRESENT .. COMPOSITION SIC2 QUANTITY (LBS) GENERATION DATA ... EXPT. TOTAL 2.00 DAILY RATE 0.03 BATCH SIZE 0.03 RECLAMATION ACTION .. hASH ***** WASTE ITEM NO. 4 ... NUTRIENT AND AUXINS STATE LIQUID DENSITY 66.00 LBS/CU. FT. ATTRIBUTES CHEMICALS ELEMENTS PRESENT .. COMPOSITION CAB, C, CL, CO, CU, L, FE, ZN, MG, MN, O, N, P, K, SI, V.MO. INDOLEATIC ACID GENERATION DATA ... QUANTITY (LBS) EXPT. TOTAL 0.30 DAILY RATE 0.00 BATCH SIZE 0.10 RECLAMATION ACTION ... ***** WASTE ITEM NO. 5 R/A ISOTOPES STATE LIQUID DENSITY 62.40 LBS/CU. FT. ATTRIBUTES CHEMICAL

ATTRIBUTES CHEMICAL ELEMENTS PRESENT .. TRITIUM

COMPOSITION

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.01
DAILY RATE 0.00
BATCH SIZE 0.00

RECLAMATION ACTION ...

S/C SUBSYSTEM PRIMATES GROUP KEY 3.4.5 BASIC FUNCTION PERFORM MISSION TASKS FUNCTIONAL REQUIREMENT BIOLOGICAL SCIENCES AND BIOTFCHN OLOGY STUDIES ** EQUIPMENT/EXPERIMENT NO. 1 PHYSIOLOGY OF CHIMPANZELS IN ORB IT ASSOCIATED FPE NUMBER S/C AREAS ANIMAL HOUSING **** WASTE SOURCE NO. 1 PHYSIOLOGY OF CHIMPANZEES IN ORBIT DOCUMENT NO. 3.4.5.1.1 REFERENCE NO. 1 .. EXPERIMENT PROGRAM FOR EXTENDED EARTH OR BITAL MISSIONS, REV NO. 1, SEPT. 1, 1969, NA SA GMSF ***** WASTE ITEM NO. 1 FOCD WRAP STATE SOLID DENSITY 170.00 LBS/CU. FT. ATTRIBUTES PLASTIC ELEMENTS PRESENT .. C2H4 COMPOSITION ETHYLENE GENERATION DATA ... QUANTITY (LBS) EXPT. TOTAL 112.00 DAILY RATE 0.37 BATCH SIZE 0.37 RECLAMATION ACTION .. N/R ***** WASTE ITEM NO. 2 LITTER STATE SOLID DENSITY 43.00 LBS/CU. FT. ATTRIBUTES **ELEMENTS PRESENT ...**

BATCH SIZE 1.00

```
S/C SUBSYSTEM .... PRIMATES
   GROUP KEY .... 3.4.5
** EQUIPMENT/EXPERIMENT NO. 1 ...... PHYSIOLOGY OF CHIMPANZEES IN ORB
**** WASTE SOURCE NO. 1 ... PHYSIOLOGY OF CHIMPANZEES IN ORBIT
**** WASTE ITEM NO. 3 .... HAIR
         STATE ..... SOLID
         DENSITY ..... 50.00 LBS/CU. FT.
         ATTRIBUTES .... KERATIN
         ELEMENTS PRESENT ..
         COMPOSITION .... PROTEIN
                                        QUANTITY (LBS)
         GENERATION DATA ...
                                         37.50
                 EXPT. TOTAL
                 DAILY RATE
                                         0.12
                 BATCH SIZE
                                          0.12
         RECLAMATION ACTION ...
***** WASTE ITEM NO. - 4 .... SKIN
         STATE ..... SEMI-SOLID
         DENSITY ..... 63.00 LBS/CU. FT.
         ATTRIBUTES ......
         ELEMENTS PRESENT ...
         COMPOSITION ..... PROTEIN
                                        QUANTITY (LBS)
         GENERATION DATA ...
                 EXPT. TOTAL
                                          1.90
                  DAILY RATE
                                          0.01
                  BATCH SIZE
                                          0.01
         RECLAMATION ACTION .. N/R
***** WASTE ITEM NO. 5 .... WIPES
         STATE ..... SOLID
         DENSITY ...... 72.00 LBS/CU. FT.
         ATTRIBUTES .... SHEET
         ELFMENTS PRESENT ...
         COMPOSITION ..... CELLULOSE
                                        QUANTITY (LBS)
         GENERATION DATA ...
                  EXPT. TOTAL'
                                         75.00
                  DAILY RATE
                                          0.25
                  BATCH SIZE
                                          0.25
```

S/C SUBSYSTEM PRIMATES
GROUP KEY 3.4.5

** EQUIPMENT/EXPERIMENT NO. 1PHYSIOLOGY OF CHIMPANZEES IN ORB

*** WASTE SOURCE NO. 1 PHYSIOLOGY OF CHIMPANZEES IN ORBIT
**** ********************

**** WASTE ITEM NO. 6 GLOVE STATE SDLID

DENSITY 63.00 LBS/CU. FT.

ATTRIBUTES FLAT

ELEMENTS PRESENT .. (CH(C6H5)CH2)

COMPOSITION

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 9.37
DAILY RATE 0.03
BATCH SIZE 0.03

RECLAMATION ACTION .. N/R

**** ** WASTE ITEM NO. 7 WASTE WATER

STATE LIQUID

DENSITY 62.40 LBS/CU. FT.

ATTRIBUTES

ELEMENTS PRESENT .. H20 CCMPOSITION WATER

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 3.00
DAILY RATE 0.01
BATCH SIZE 0.01

RECLAMATION ACTION .. DISTILL

****** WASTE ITEM NO. 8 URINE

STATE LIQUID

DENSITY 62.40 LBS/CU. FT.

ATTRIBUTES

ELEMENTS PRESENT .. H20 COMPOSITION WATER

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 3000.00
DAILY RATE 10.00
BATCH SIZE 10.00

RECLAMATION ACTION .. DISTILL

```
S/C SUBSYSTEM .... PRIMATES
    GROUP KEY .... 3.4.5
** E)UIPMENT/EXPERIMENT NO. 1 ......PHYSIOLOGY OF CHIMPANZEES IN ORB
                                  IT
**** WASTE SOURCE NO. 1 .... PHYSIOLOGY OF CHIMPANZEES IN ORBIT
***** WASTE ITEM NO. 9 .... CHIMPANZEE
         STATE ..... CARCASS
         DENSITY ..... 62.40 LBS/CU. FT.
         ATTRIBUTES .....
         ELEMENTS PRESENT ..
         COMPOSITION ..... PROTIEN AND MINERALS
         GENERATION DATA ...
                                        QUANTITY (LBS)
                  EXPT. TOTAL
                                         84.00
                  DAILY RATE
                                          0.00
                  BATCH SIZE
                                          84.00
         RECLAMATION ACTION .. N/R
***** WASTE ITEM NO. 10 .... CLEANING SOLUTION
         STATE ..... LIQUID
         DENSITY ..... 63.00 LBS/CU. FT.
         ATTRIBUTES ..... BACTERIOCIDE
         ELEMENTS PRESENT ..
         COMPOSITION ..... QUATERNARY AMMONIA
         GENERATION DATA ...
                                        QUANTITY (LBS)
                  EXPT. TOTAL
                                        187.50
                  DAILY RATE
                                          0.60
                  BATCH SIZE
                                           0.60
         RECLAMATION ACTION ..
***** WASTE ITEM NO. 11 .... DATA PAPER
         STATE ..... SOLID
         DENSITY ..... 72.00 LBS/CU. FT.
         ATTRIBUTES ..... SHEETS
         ELEMENTS PRESENT ..
         COMPOSITION ..... CELLULOSE
         GENERATION DATA ...
                                        QUANTITY (LBS)
                  EXPT. TOTAL
                                           3.00
                  DAILY RATE
                                           0.01
                  BATCH SIZE
                                          0.01
         RECLAMATION ACTION .. N/R
```

S/C SUBSYSTEM PRIMATES GRQUP KEY 3.4.5 ** EQUIPMENT/EXPERIMENT NO. 1PHYSIOLOGY OF CHIMPANZEES IN ORB IT **** WASTE SOURCE NO. 1 ... PHYSIOLOGY OF CHIMPANZEES IN ORBIT **** **** WASTE ITEM NO. 12 ELECTRONIC SENSOR STATE SOLID DENSITY 0.00 LBS/CU. FT. ATTRIBUTES GLASS METAL TUBES ELEMENTS PRESENT .. SIC2 COMPOSITION STEEL QUANTITY (LBS) GENERATION DATA ... EXPT. TOTAL DAILY RATE 1.00 0.00 0.02 BATCH SIZE RECLAMATION ACTION .. NONE ***** WASTE ITEM NO. 13 FECES STATE DENSITY 58.00 LBS/CU. FT. ATTRIBUTES SEMI-SOLID BLOB ELEMENTS PRESENT .. COMPOSITION PROTIEN PLUS QUANTITY (LBS) GENERATION DATA ... EXPT. TOTAL 750.00 DAILY RATE 2.50 BATCH SIZE 2.50 RECLAMATION ACTION .. N/R ***** WASTE ITEM NO. 14 DRY CHEMISTRY COMPONENTS STATE SOLID DENSITY 74.00 LBS/CU. FT. ATTRIBUTES PAPER ELEMENTS PRESENT ..

COMPOSITION CELLULOSE

EXPT. TOTAL

DAILY RATE

BATCH SIZE

RECLAMATION ACTION ... N/R

GENERATION DATA ...

QUANTITY (LBS)

1.00

0.00

S/C SUBSYSTEM PRIMATES GROUP KEY 3.4.5

** EQUIPMENT/EXPERIMENT NO. IPHYSIOLOGY OF CHIMPANZEES IN ORB

**** WASTE SOURCE NO. 1 PHYSIOLOGY OF CHIMPANZEES IN ORBIT

***** WASTE ITEM NO. 15 FGGD PARTICLES

STATE SOLID

DENSITY 95.00 LBS/CU. FT. ATTRIBUTES AEROSOL AND BITS

ELEMENTS PRESENT .. CHCN

COMPOSITION

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 1.00
DAILY RATE 0.00
BATCH SIZE 0.00

S/C SUBSYSTEM PRIMATES

GROUP KEY 3.4.5

** EQUIPMENT/EXPERIMENT NO. 2 HEMODYNAMICS AND METABOLIC EFFEC

ASSOCIATED FPE NUMBER ...

S/C AREAS ANIMAL HOUSING

**** WASTE SOURCE NO. 1 HEMGDYNAMICS AND METABOLIC EFFECTS ON MO NKEYS

DOCUMENT NO. 3.4.5.2.1

REFERENCE NO. 1 .. EXPERIMENT PROGRAM FOR EXTENDED EARTH OR BITAL MISSION, REVISION NO.1, SEPT.1,196
9, NASA OMSF

**** WASTE ITEM NO. 1 FOCD WRAPS

STATE SOLID

DENSITY 63.00 LBS/CU. FT.

ATTRIBUTES PLASTIC FILM

ELEMENTS PRESENT .. COH4

COMPOSITION ETHELENE

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 60.00 DAILY RATE 0.25 BATCH SIZE 0.25

RECLAMATION ACTION .. N/R

**** WASTE ITEM NO. 2 LITTER

STATE SOLID

DENSITY 43.00 LBS/CU. FT.

- ATTRIBUTES

ELEMENTS PRESENT .. .

COMPOSITION

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 180.00
DAILY RATE 0.75
BATCH SIZE 0.75

RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 3,000 SKIN

STATE SEMI-SOLID

DENSITY 63.00 LBS/CU. FT.

ATTRIBUTES

ELEMENTS PRESENT ..

COMPOSITION PROTEIN

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.50
DAILY RATE 0.00
BATCH SIZE 0.00

```
S/C SUBSYSTEM .... PRIMATES
   GROUP KEY .... 3.4.5
** EQUIPMENT/EXPERIMENT NO. 2 ..... HEMODYNAMICS AND METABOLIC EFFEC
                                 TS ON MONKEYS
**** WASTE SOURCE NO. 1 .... HEMODYNAMICS AND METABOLIC EFFECTS ON MO
                          NKEYS
**** WASTE ITEM NO. 4 .... HAIR
         STATE ..... SOLID
         DENSITY ..... 50.00 LBS/CU. FT.
         ATTRIBUTES .... KERATIN
         ELEMENTS PRESENT ..
         COMPOSITION ..... PRCTIEN
                                        QUANTITY (LBS)
         GENERATION DATA ...
                 EXPT. TOTAL
                                         14.40
                 DAILY RATE
                                          0.06
                  BATCH SIZE
                                          0.06
         RECLAMATION ACTION .. N/R
**** WASTE ITEM NO. 5 .... WIPES
         STATE ..... SOLID
         DENSITY ..... 72.00 LBS/CU. FT.
         ATTRIBUTES ..... SHEETS
         ELEMENTS PRESENT ..
         COMPOSITION ..... CELLULOSE
                                        QUANTITY (LBS)
         GENERATION DATA ...
                  EXPT. TOTAL
                                         40.00
                  DAILY RATE
                                          0.17
                  BATCH SIZE
                                          0.17
         RECLAMATION ACTION .. N/R
***** WASTE ITEM NO. 6 .... GLOVES
         STATE ..... SOLID
         DENSITY ..... 63.00 LBS/CU. FT.
         ATTRIBUTES ..... FLAT
         ELEMENTS PRESENT ..
         COMPOSITION ..... PLASTIC
         GENERATION DATA ...
                                        QUANTITY (LBS)
                  EXPT. TOTAL
                                           5.00
                  DAILY RATE
                                           0.02
                  BATCH SIZE
                                          0.02
```

11/30/70 RUN NO. ** 2 ** PAGE 344 S/C SUBSYSTEM PRIMATES GROUP KEY 3.4.5 ** EQUIPMENT/EXPERIMENT NO. 2HEMODYNAMICS AND METABOLIC EFFEC TS ON MONKEYS **** WASTE SOURCE NO. I HEMODYNAMICS AND METABOLIC EFFECTS ON MO NKEYS **** PASTE ITEM NO. 7 FOOD PARTICLES STATE SOLID DENSITY 95.00 LBS/CU. FT. ATTRIBUTES AEROSOL, BITS ELEMENTS PRESENT .. CHCN COMPOSITION GENERATION DATA ... QUANTITY (LBS) EXPT. TOTAL 1.00 DAILY RATE 0.00 BATCH SIZE 0.00 RECLAMATION ACTION ... ***** WASTE ITEM NO. 8 CLEANSING SOLUTION STATE LIQUID DENSITY 63.00 LBS/CU. FT. ATTRIBUTES BACTERIOCIDE ELEMENTS PRESENT .. COMPOSITION QUATERNARY, AMMONIA GENERATION DATA ... QUANTITY (LBS) EXPT. TOTAL 100.00 DAILY RATE 0.40 BATCH SIZE 0.40 RECLAMATION ACTION .. N/R ***** WASTE ITEM NO. 9 DATA PAPER STATE SOLID DENSITY 70.00 LBS/CU. FT. ATTRIBUTES SHEETS

1

ELEMENTS PRESENT ..

COMPOSITION CELLULOSE

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 2.00 DAILY RATE 0.01 BATCH SIZE 0.01

```
S/C SUBSYSTEM .... PRIMATES
   SROUP KEY .... 3.4.5
** EQUIPMENT/EXPERIMENT NO. 2 .....HEMODYNAMICS AND METABOLIC EFFEC
                                  TS ON MONKEYS
**** WASTE SOURCE NO. I .... HEMODYNAMICS AND METABOLIC EFFECTS ON MO
                           NKEYS
**** WASTE ITEM NO. 10 .... SYRINGE
         STATE ..... SOLID
         DENSITY ...... 160.00 LBS/CU. FT.
         ATTRIBUTES ..... GLASS
         ELEMENTS PRESENT ..
         COMPOSITION ..... SIC2
         GENERATION DATA ...
                                        QUANTITY (LBS)
                  EXPT. TOTAL
                                          10.00
                  DAILY RATE
                                           0.00
                  BATCH SIZE
                                           0.00
         RECLAMATION ACTION .. STERILIZE
***** WASTE ITEM NO. 11 .... NEEDLE
         STATE ..... SOLID
         DENSITY ..... 488.00 LBS/CU. FT.
         ATTRIBUTES ..... STEEL
         ELEMENTS PRESENT ..
         COMPOSITION ..... FEC
         GENERATION DATA ...
                                         QUANTITY (LBS)
                  EXPT. TOTAL
                                           0.50
                  DAILY RATE
                                           0.00
                  BATCH SIZE
                                           0.01
         RECLAMATION ACTION .. STERILIZE
***** WASTE ITEM NO. 12 .... WASTE WATER
         STATE ..... LIQUID
         DENSITY ..... 62.40 LBS/CU. FT.
         ATTRIBUTES ......
         ELEMENTS PRESENT ... H20
         COMPOSITION ..... WATER
         GENERATION DATA ...
                                         QUANTITY (LBS)
                  EXPT. TOTAL
                                           2.00
                  DAILY RATE
                                           0.01
                  BATCH SIZE
                                           0.01
         RECLAMATION ACTION .. DISTILL
```

S/C SUBSYSTEM PRIMATES

```
3ROUP KEY .... 3.4.5
** EQUIPMENT/EXPERIMENT NO. 2 ..... HEMODYNAMICS AND METABOLIC EFFEC
                                 TS ON MONKEYS
**** WASTE SOURCE NO. 1 ... HEMODYNAMICS AND METABOLIC EFFECTS ON MO
                           MKEYS
**** WASTE ITEM NO. 13 ... DRY CHEMISTRY COMPONENTS
         STATE ..... SOLID
         DENSITY ..... 74.00 LBS/CU. FT.
         ATTRIBUTES .... PAPER
         ELEMENTS PRESENT ..
         COMPOSITION ..... CELLULOSE, CHEMICALS
         GENERATION DATA ...
                                        QUANTITY (LBS)
                                          1.00
                  EXPT. TOTAL
                  DAILY RATE
                                           0.00
                  BATCH SIZE
                                           0.02
        RECLAMATION ACTION .. N/R
***** WASTE ITEM NO. 14 .... MONKEY
         STATE ......
         DENSITY ..... 62.40 LBS/CU. FT.
         ATTRIBUTES .... CARCASS
         ELEMENTS PRESENT ...
         COMPOSITION ..... PROTEIN, MINERALS
                                       QUANTITY (LBS)
         GENERATION DATA ...
                  EXPT. TOTAL
                                           2.00
                  DAILY RATE
                                           0.00
                  BATCH SIZE
                                           2.00
         RECLAMATION ACTION .. N/R
**** WASTE ITEM NO. 15 .... ELECTRONIC SENSORS
         STATE ......
         DENSITY ..... 170.00 LBS/CU. FT.
         ATTRIBUTES ..... GLASS, METAL TUBES
         ELEKENTS PRESENT ... SIO2
         COMPOSITION ..... STEEL
                                        QUANTITY (LBS)
         GENERATION DATA ...
                  EXPT. TOTAL
                                           1.00
                  DATLY RATE
                                           0.00
                  BATCH SIZE
                                          0.02
```

S/C SUBSYSTEM PRIMATES GROUP KEY 3.4.5 ** EQUIPMENT/EXPERIMENT NO. 2HEMODYNAMICS AND METAB LIC EFFEC TS ON MONKEYS **** WASTE SOURCE NO. 1 HEMODYNAMICS AND METABOLIC EFFECIS ON MO **NKEYS** *********************************** ***** WASTE ITEM NO. 16 URINE STATE LIQUID DENSITY 62.40 LBS/CU. FT. ATTRIBUTES CHEMICALS ELEMENTS PRESENT .. H2C COMPOSITION WATER GENERATION DATA ... QUANTITY (LBS) EXPT. TOTAL 576.00 DAILY RATE 2.40 BATCH SIZE 2 = 40 RECLAMATION ACTION .. DISTILL

**** WASTE ITEM NO. 17 FECES STATE SEMI-SOLID BLOB

DENSITY 58.00 LBS/CU. FT.

ATTRIBUTES

ELEMENTS PRESENT .. PRCTEIN

COMPOSITION

GENERATION DATA ... QUANTITY (LBS) EXPT. TOTAL 240.00 DAILY RATE 1.00

BATCH SIZE 1.00

MEDICAL STUDIES/TASKS

S/C SUBSYSTEM BIOMEDICAL RESEARCH (A)

GROUP KEY 3.5.1

BASIC FUNCTION PERFORM MISSION TASKS
FUNCTIONAL REQUIREMENT BIOTECHNOLOGY AND HUMAN PESLARCH

** EQUIPMENT/EXPERIMENT NO. 1 NEUROPHYSICLOGY

ASSOCIATED FPE NUMBER ... 5.13
S/C AREAS MEDICAL LABORATORY

** ** NASTE SOURCE NO. 1 EFFECTS OF HEAD MOVEMENT DURING ROTATION

DOCUMENT NO. 3.5.1.1.1

REFERENCE NO. 1 .. MECICAL ASPECTS OF AN ORBITING RESFARCH LABORATORY, NASA SPACE MEDICINE ADVISORY GROUP, NASA REPORT NC. SP-86, 1960.

REFERENCE NO. 2 .. NASA EXPERIMENT DESCRIPTIONS FOR EXTFNDE D APOLLO EARTH-DRBIT FLIGHTS, NASA HEADG UARTERS, WASHINGTON, D.C., MARCH 1965.

REFERENCE NO. 3 .. EXPERIMENT PROGRAM FOR FXTENDED EARTH OR BITAL MISSIONS, REVISION NO. 1, SEPTEMBE R 1, 1969, NASA ONSF.

REFERENCE NO. 4 .. FEASIBILITY STUDY OF A CENTRIFUGE EXPERT MENT FOR THE AAP, NASA RFPL 7631.

REFERENCE NO. 5 .. IMBLMS

**** WASTE ITEM NO. 1 EEG TRACE PAPER

STATE SOLID

DENSITY 44.00 LBS/CU. FT.

ATTRIBUTES STRIP

ELEMENTS PRESENT ..

CCMPOSITION CELLULOSE

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 2.00
DAILY RATE 0.01
BATCH SIZE 0.01

1

```
S/C SUBSYSTEM .... BIOMEDICAL RESEARCH (A)
   GROUP KEY .... 3.5.1
** EQUIPMENT/EXPERIMENT NO. 1 .....NEUROPHYSIOLOGY
**** WASTE SOURCE NO. 1 .... EFFECTS OF HEAD MOVEMENT DURING ROTATION
*****************
***** WASTE ITEM NO. 2 .... FILM
         STATE ..... SOLID
         DENSITY ..... 83.00 LBS/CU. FT.
         ATTRIBUTES .... PLASTIC
         ELEMENTS PRESENT ...
         COMPOSITION ..... ACLAR, SILVER EMULSION
                                         QUANTITY (LBS)
         GENERATION DATA
                                            1.50
                  EXPT. TOTAL
                  DAILY RATE
                                            0.03
                  BATCH SIZE
                                            0.01
         RECLAMATION ACTION .. UNKNOWN
***** WASTE ITEM NO. 3 .... FILM WRAPPINGS
         STATE ..... SOLID
         DENSITY ..... 70.00 LBS/CU. FT.
         ATTRIBUTES .... SHEETS
         ELEMENTS PRESENT ..
         COMPOSITION ..... CELLULOSE
                                         QUANTITY (LBS)
         GENERATION DATA ...
                  EXPT. TOTAL
                                            2.50
                  DAILY RATE
                                            0.00
                  BATCH SIZE
                                            0.50
         RECLAMATION ACTION .. N/R
***** WASTE ITEM NO. 4 .... VOKITUS
         STATE ..... LIQUID
         DENSITY ..... 60.00 LBS/CU. FT.
         ATTRIBUTES .....
         ELEMENTS PRESENT ...
         COMPOSITION ..... CHON
         GENERATION DATA ...
                                         QUANTITY (LBS)
                  EXPT. TOTAL
                                            3.00
                  DAILY RATE
                                            0.00
                  BATCH SIZE
                                            1.00
         RECLAMATION ACTION .. N/R
```

S/C SUBSYSTEM BIOMEDICAL RESEARCH (A) GROUP KEY 3.5.1 ** EQUIPMENT/EXPERIMENT NO. 1NEUROPHYSIOLOGY *** WASTE SOURCE NO. 2 ... SENSITIVITY OF OTOLITH AND SEMI-CIRCULAR CANAL MECHANISMS COCUMENT NO. 3.5.1.1.2 REMARKS (1) FOR OPERATIONAL DESCRIPTION SEE DOCUMENT NO. A- 3.5.1.1.1 **** ** WASTE ITEM NO. 1 EEG TRACE PAPER STATE SOLID DENSITY 44.00 LBS/CU. FT. ATTRIBUTES STRIP **ELEMENTS PRESENT** ... COMPOSITION CELLULOSE GENERATION DATA ... QUANTITY (LBS) EXPT. TOTAL DAILY RATE 1.00 0.00 BATCH SIZE 0.01 RECLAMATION ACTION .. N/R **** WASTE ITEM NO. 2 CONTACT PASTE STATE SEMI-SOLID DENSITY 53.00 LBS/CU. FT. ATTRIBUTES PASTE ELEMENTS PRESENT .. COMPOSITION KCL GENERATION DATA ... QUANTITY (LBS) EXPT. TOTAL DAILY RATE 0.20 0.00 BATCH SIZE 00.0 RECLAMATION ACTION .. COLLECT, REHYDRATE ***** WASTE ITEM NO. 3 FILH STATE SOLD DENSITY 83.00 LBS/CU. FT. ATTRIBUTES PLASTIC, STRIPS ELEMENTS PRESENT .. COMPOSITION ACLAR, SILVER EMULSION

EXPT. TOTAL DAILY RATE

BATCH SIZE

RECLAMATION ACTION .. UNKNOWN

GENERATION DATA ...

QUANTITY (LBS)

15.00

0.13

```
S/C SURSYSTEM .... BIOMEDICAL RESEARCH (A)
   SROUP. KEY .... 3.5.1
** E JUIPMENT/EXPERIMENT NO. I .....NFUROPHYSIOLOGY
**** WASTE SOURCE NO. 2 .... SEKSITIVITY OF OTOLITH AND SEMI-CIPCULAR
                            CANAL MECHANISMS
**** WASTE ITEM NO. 4 .... FILM WRAPPING
         STATE ..... SCLID
         DENSITY ..... 7C.00 LRS/CU. FT. ATTRIBUTES ..... SHEETS
         ELEMENTS PRESENT ..
         COMPOSITION ..... CELLULOSF
         GENERATION DATA ...
                                        QUANTITY (LBS)
                  EXPT. TOTAL
                                           5.00
                  DAILY RATE
                                           0.00
                  BATCH SIZE
                                           0.04
         RECLAMATION ACTION .. N/R
***** WASTE ITEM NO. 5 ... CATA SHEFTS
         STATE ..... SOLID
         DENSITY ..... 49.00 LBS/CU. FT.
         ATTRIBUTES .....
         ELEMENTS PRESENT ..
         CCMPOSITION .... CELLULOSE
         GENFRATION DATA ...
                                        QUANTITY (LPS)
                  EXPT. TOTAL
                                           0.50
                  DAILY RATE
                                           0.00
                  BATCH SIZE
                                           0.00
         RECLAMATION ACTION ..
```

S/C SUBSYSTEM BIOMEDICAL RESEARCH (A) 3ROUP KEY 3.5.1 ** EQUIPMENT/EXPERIMENT NO. 1NEUROPHYSIOLOGY **** WASTE SOURCE NO. 3 EFFFCT OF DAY-NIGHT CYCLES, EFFFCT ON LIT TER SIZE AND ON EFG CF CATS COCUMENT NO. 3.5.1.1.3 REFFRENCE NO. 1 .. EXPERIMENT PROCRAM FOR EXTENDED EAPTH OP BITAL MISSIGNS, REVISION NO. 1, SEPTEMBE R 1, 1969, NASA DMSF. **** "* WASTE ITEM NO. 1 URINE STATE LIQUID DENSITY 63.00 LAS/CU. FT. ATTRIBUTES CHEMICAL ELFMENTS PRESENT .. COMPOSITION CHEN, WATER GENERATION DATA ... QUANTITY (LBS) EXPT. TOTAL 180.00 DAILY RATE 0.50 BATCH SIZE 0.50 RECLAMATION ACTION .. DISTILL TO WATER ***** WASTE ITEM NO. 2 ... FECES STATE SEMI-SOLID DENSITY 58.00 LBS/CU. FT. ATTRIBUTES ELEMENTS PRESENT .. CGMPOSITION CHCN GENERATION DATA ... -QUANTITY (LBS) EXPT. TOTAL 100.00 STAR YLIAG 0.27 BATCH SIZE 0.27 RECLAMATION ACTION .. N/R **** WASTE ITEM NO. 3 ... FILM STATE SCLID DFNSITY 83.00 LRS/CU. FT. ATTRIBUTES PLASTIC, STRIPS ELEMENTS PRESENT .. COMPOSITION ACLAR, SILVER EMULSION GENERATION DATA ... QUANTITY (LBS) EXPT. TOTAL 1.00 DAILY RATE 0.00 BATCH SIZE 0.01

RECLAMATION ACTION .. LNKNOWN

RUN NO. ** 2 **

```
S/C SUBSYSTEM .... BIOMEDICAL RESEARCH (A)
   GROUP KEY .... 3.5.1
** EQUIPMENT/EXPERIMENT NO. : 1 ......NEUROPHYSIOLOGY
**** WASTE SOURCE NO. 3 .... EFFECT OF DAY-NIGHT CYCLES, EFFECT ON LIT
                          TER SIZE AND ON EEG OF CATS
***** WASTE ITEM NO. 4 ... FOOD PARTICLES
         STATE ..... SOLID
        DENSITY ..... 95.00 LBS/CU. FT.
         ATTRIBUTES ..... AEROSOL, BITS
         ELEMENTS PRESENT ...
         COMPOSITION ..... CHON
                                       QUANTITY (LBS)
         GENERATION DATA ...
                 EXPT. TOTAL
                                         1.00
                 DAILY RATE
                                         0.00
                 BATCH SIZE
                                         0.00
         RECLAMATION ACTION ..
**** ** WASTE ITEM NO. 5 ... WASTE WATER
         STATE ..... LIQUID
         DENSITY ...... 62.40 LBS/CU. FT.
         ATTRIBUTES .....
         ELEMENTS PRESENT ..
         COMPOSITION .... WATER
                                        QUANTITY (LBS)
         GENERATION DATA ...
                 EXPT. TOTAL
                                         10.00
                 DAILY RATE
                                          0.03
                 BATCH SIZE
                                          0.03
         RECLAMATION ACTION .. DISTILL
**** WASTE ITEM NO. 6 .... CONTACT PASTE
         STATE ..... SEMI-LIQUID
         DENSITY ..... 53.00 LBS/CU. FT.
```

ATTRIBUTES **ELEMENTS PRESENT ..** COMPOSITION KCL GENERATION DATA ... QUANTITY (LBS) EXPT. TOTAL 0.50 DAILY RATE 0.00 BATCH SIZE 0.01

RECLAMATION ACTION .. COLLECT, REHYDRATE

```
S/C SURSYSTEM .... BIOMEDICAL RESEARCH (A)
   JROUP KEY .... 3.5.1
** EQUIPMENT/EXPERIMENT NO. 1 .....NEUROPHYSIOLOGY
**** WASTE SOURCE NO. 3 .... EFFECT OF DAY-NIGHT CYCLES, FFFECT ON LIT
                          TER SIZE AND ON EEG OF CATS
****************
***** WASTE ITEM NO. 7 .... LITTER
         STATE ..... SOLID
         DENSITY ..... 20.00 LBS/CU. FT.
         ATTRIBUTES ......
         ELEMENTS PRESENT ..
         COMPOSITION .....
                                        QUANTITY (LBS)
         GENERATION DATA ...
                  EXPT. TOTAL
                                          15.00
                 DAILY RATE
                                          0.04
                                          0.04
                  BATCH SIZE
         PECLAMATICN ACTION .. N/R
***** WASTE ITEM NO. 3 .... 6 RATS
         STATE ..... SOLID
         DENSITY ..... C.OO LBS/CU. FT.
         ATTRIBUTES ..... CARCASS
         ELEMENTS PRESENT ..
         COMPOSITION ..... PROTEIN, MINERALS
                                       QUANTITY (LBS)
         GENERATION DATA ...
                  EXPT. TOTAL
                                           3.00
                  JAILY RATE
                                           0.00
                  BATCH SIZE
                                           3.00
         RECLAMATION ACTION .. N/R
**** ** WASTE ITEM NO. 9 .... 2 CATS
         STATE ..... SOLID
```

STATE SOLID

DENSITY 0.00 LBS/CU. FT.

ATTRIBUTES CARCASS

ELFMENTS PRESENT ..

CCMPOSITIGN PROTEIN AND MINERALS

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 3.00

DATLY RATE 0.00

BATCH SIZE 3.00

S/C SUBSYSTEM BIOMEDICAL RESEARCH (A) SROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. '1NEUROPHYSIOLOGY

**** WASTE SOURCE NO. 3 EFFECT OF DAY-NIGHT CYCLES, EFFECT ON LIT TER SIZE AND ON EEG OF CATS

**** WASTE ITEM NO. 10 AMMONIA GAS

STATE GAS

DENSITY 0.05 LBS/CU. FT.

ATTRIBUTES FUMES

ELEMENTS PRESENT ...

COMPOSITION AMMONIA

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.10
DAILY RATE 0.00
BATCH SIZE 0.00

RECLANATION ACTION ..

S/C SUBSYSTEM BIOMEDICAL RESEARCH (A) SROUP KEY 3.5.1

**** WASTE SOURCE NO. 4 HUMAN VESTIBULAR FUNCTION

DOCUMENT NO. 3.5.1.1.4

REMARKS (1) FOR OPERATIONAL DESCRIPTION SEE COCUMENT NO. A- 3.5.1.1.1

**** WASTE ITEM NO. 1 EEG TRACE PAPER

STATE SOLID

DENSITY 44.00 LBS/CU. FT.

ATTRIBUTES STRIP

ELEMENTS PRESENT ..

CCMPOSITION CELLULOSE

GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 1.00

DAILY RATE 0.00 BATCH SIZE 0.01

RECLAMATION ACTION .. N/R

***** ** WASTE ITEN A* ***

STATE SOLID

DENSITY 83.00 LBS/CU. FT.

ATTRIBUTES PLASTIC, STRIP

ELEMENTS PRESENT ..

COMPOSITION ACLAR, SILVER EMULSION

_ CENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 2.00
DAILY RATE 0.00
BATCH SIZE 0.02

RECLAMATION ACTION .. UNKNOWN

**** WASTE ITEM NO. 3 DATA SHEETS

STATE SOLID

DENSITY 49.00 LBS/CU. FT.

ATTRIBUTES

ELEMENTS PRESENT ..

CCMPOSITION CELLULOSE

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 1.00
DAILY RATE 0.00
BATCH SIZE 0.01

S/C SUBSYSTEM BIOMEDICAL RESEARCH (A) GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 1NEUROPHYSIOLOGY

*** WASTE SOURCE NO. 4 HUMAN VESTIBULAR FUNCTION

***** WASTE ITEM NO. 4 VOMITUS
STATE LIQUID

DENSITY 60.00 LBS/CU. FT.

ATTRIBUTES

ELEMENTS PRESENT ..

COMPOSITION CHCN

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 1.00
DAILY RATE 0.00
BATCH SIZE 0.20

S/C SUBSYSTEM BIOMEDICAL RESEARCH (B) SROUP KEY 3.5.1

** F JUIP VENT/EXPEPIMENT NU. 2 CAPPILVASCULAR

ASSCCIATED FPE NUMBER ... 5.13
S/C APEAS MEDICAL LABORATORY

**** WASTE SOURCE NO. 1 CHANGES IN CIRCULATORY RESPONSE TO EXEPC

DUCLMEAT NO. 3.5.1.2.1

REFERENCE NO. 1 .. MFDICAL ASPECTS OF AN ORBITING RESEARCH LABORATORY, NASA SPACE MEDICINE ADVISORY GROUP, NASA REPORT NO. SP-86, 1966.

REFERENCE NO. 2 .. EXPERIMENT PROGRAM FOR EXTENDED EARTH OR BITAL MISSIONS, REVISION NO. 1, SEPTEMBE R 1, 1969, NASA DMSF.

***** WASTE ITEM NG. 1 AUDIC TAPE

STATE SOLID

DENSITY 105.00 LBS/CU. FT.

ATTRIBUTES PLASTIC STRIPS

ELFMENTS PRESENT ..

CCMPOSITION ACLAR-FE02

GENERATICN DATA ... QUANTITY (LBS)
EXPT. TOTAL 3.00
DAILY RATE 0.00

BATCH SIZE 0.05

RECLAMATION ACTION .. N/R

**** WASTE ITEM NO. 2 EKC PAPER/TAPE

STATE SOLID

DENSITY 44.00 LBS/CU. FT.

ATTPIBUTES SHEETS

ELEMENTS PRESENT ..

CLMPDSITION CELLULOSE

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 10.00 DAILY RATE 0.00 SATCH SIZE 0.18

S/C SUBSYSTEM BIOMEDICAL RESEARCH (B) GROUP KEY 3.5.1 ** EQUIPMENT/EXPERIMENT NO. 2CARDIOVASCULAR **** WASTE SOURCE NO. I CHANGES IN CIRCULATORY RESPONSE TO EXERC ISE ***** WASTE ITEM NO. 3 CONTACT PASTE STATE SEMI-LIQUID DENSITY 53.00 LBS/CU. FT. ATTRIBUTES **ELEMENTS PRESENT ..** COMPOSITION POTASSIUM CHLORIDE GENERATION DATA ... QUANTITY (LBS) EXPT. TOTAL 0.50 DAILY RATE 0.00 BATCH SIZE 0.01 RECLAMATION ACTION .. COLLECT REHYDRATE ***** WASTE ITEM NO. 4 HAIR STATE SEMI SOLID DENSITY 55.00 LBS/CU. FT. ATTRIBUTES **ELEMENTS PRESENT** .. COMPOSITION KERATIN GENERATION DATA ... QUANTITY (LBS) EXPT. TOTAL 1.00 DAILY RATE 0.00 BATCH SIZE 0.02 RECLAMATION ACTION .. COLLECT AND WASH ***** WASTE ITEM NO. 5 SKIN STATE SOLID DENSITY 59.00 LBS/CU. FT. ATTRIBUTES FLAKES ELEMENTS PRESENT .. COMPOSITION PROTEIN GENERATION DATA ... QUANTITY (LBS) EXPT. TOTAL 0.30 DAILY RATE 0.00 BATCH SIZE 0.00 RECLAMATION ACTION .. N/R

S/C RUBSYSTEM PIOMEDICAL RESEARCH (B) ROUP KEY 3.5.1

** E DUIPMENT/EXPERIMENT NO. 2CARDIOVASCULAR

*** WASTE SOURCE NO. 1 CHANGES IN CIRCULATORY RESPONSE TO EXECC

ISE

** ተመመመመመመው የተመቀው የተመው የተመቀው የተመቀው

*** WASTE ITEM NJ. 6 INSTRUMENT WASTE

STATE SELIDS

DENSITY 185.00 LPS/CU. FT.

ATTRIBUTES WIRES ETC. ELEMENTS PRESENT .. CU, AL, ETC. COMPOSITION S1C2, FEC

GENERATICY DATA ... QUANTITY (LBS)

EXPT. TOTAL 5.00 DAILY RATE 0.00 SATCH SIZE 5.00

RECLAMATION ACTION .. UNKNOWN

S/C SUBSYSTEM BIOMEDICAL RESEARCH (B) GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 2CARDIOVASCULAR

**** WASTE SOURCE NO. 2 EFFECT OF BLOOD DISTRIBUTION ON ARTERIAL PRESSURE CONTROL SYSTEMS

DOCUMENT NO.

REFERENCE NO. 1 .. EXPERIMENT PROGRAM FOR EXTENDED EARTH OR BITAL MISSIONS, REVISION NO. 1, SEPTEMBE R 1, 1969, NASA OMSF.

REFERENCE NO. 2 .. EXPERIMENT PROGRAM FOR EXTENDED EARTH OR BITAL TORY, NASA SPACE MEDICINE ADVISORY GROUP, NASA REPORT NO. SP-86, 1966MISSI ONS, REVISION NO. 1, SEPTEMBER 1, 1969,

**** ** WASTE ITEM NO. 1 INSTRUMENTATION

STATE SOLID

DENSITY 185.00 LBS/CU. FT. ATTRIBUTES GLASS AND METAL TUBE

ELEMENTS PRESENT ...

COMPOSITION SIO2-FEC

GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL: 10.00

EXPT. TOTAL: 10.00 DAILY RATE 0.00 BATCH SIZE 10.00

RECLAMATION ACTION .. REPAIR

***** WASTE ITEM NO. 2 FILM STATE SOLID

DENSITY 83.00 LBS/CU. FT.

ATTRIBUTES PLASTIC

ELEMENTS PRESENT ..

COMPOSITION ACLAR, SILVER EMULSION

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 1.50
DAILY RATE 0.00
BATCH SIZE 0.02

RECLAMATION ACTION .. UNKNOWN

```
S/C SUBSYSTEM .... BIOMEDICAL RESEARCH (B)
   GROUP KEY .... 3.5.1
** EJUIPMENT/EXPERIMENT NO. 2 .....CARDIOVASCULAR
**** WASTE SOURCE NO. 2 .... EFFECT OF BLOOD DISTRIBUTION ON ARTERIAL
                           PRESSURE CONTROL SYSTEMS
**** WASTE ITEM NO. 3 .... CATA SHEETS
         STATE .... SOLID
         DENSITY ..... 44.00 LBS/CU. FT.
         ATTRIBUTES ..... SHEETS
         ELEMENTS PRESENT ...
         COMPOSITION ..... CELLULOSE
         GENERATION DATA ...
                                        QUANTITY (LBS)
                 EXPT. TOTAL
                                           1.00
                DAILY RATE
                                           0.00
                  BATCH SIZE
                                           0.02
         RECLAMATION ACTION .. N/R
**** WASTE ITEM NO. 4 .... CAPILLARY TUBES
         STATE ..... SOLID
         DENSITY ..... 160.00 LBS/CU. FT.
         ATTRIBUTES ..... GLASS TUBES
         ELEMENTS PRESENT ..
         CCMPOSITION ..... SIC2
         GENERATIEN DATA ...
                                        QUANTITY (LBS)
                  EXPT. TOTAL
                                           0.25
                  DAILY RATE
                                           0.00
                  BATCH SIZE
                                           0.00
         RECLAMATION ACTION .. WASH, DRY STERILIZE
***** WASTE ITEM NO. 5 .... CHEMICAL REACTANTS
         STATE ..... LIQUID
         DENSITY ..... 56.00 LBS/CU. FT.
         ATTRIBUTES ..... CHEMICALS
         ELEMENTS PRESENT ..
         COMPOSITION ..... HCL, H2O, NA104, NACLK2CO3, NA2, S205, C2H4D2,
                           CH30-(OH)C6H3CHO
         GENERATION DATA ...
                                        QUANTITY (LBS)
                  EXPT. TOTAL
                                           5.00
                  DAILY RATE
                                           0.00
                  BATCH SIZE
                                           0.09
         RECLAMATION ACTION .. N/R
```

```
S/C SUBSYSTEM .... BIOMEDICAL RESEARCH (B)
   GROUP KEY ..... 3.5.1
** EQUIPMENT/EXPERIMENT NO. 2 .....CARDIOVASCULAR
**** WASTE SOURCE NO. 2 .... EFFECT OF BLOOD DISTRIBUTION ON ARTERIAL
                           PRESSURE CONTROL SYSTEMS
***** WASTE ITEM NO. 6 ... BLCOD
        STATE ..... LIQUID
        DENSITY ..... 65.52 LBS/CU. FT.
        ATTRIBUTES ..... ORGANIC
        ELEMENTS PRESENT ...
        COMPOSITION ..... PROTEIN-SALTS CHON
        GENERATION DATA ...
                                        QUANTITY (LBS)
                 EXPT. TOTAL
                                          4.00
                 DAILY RATE
                                          0.00
                 BATCH STZE
                                          0.07
        RECLAMATION ACTION .. N/R
**** WASTE ITEM NO. 7 .... URINE
        STATE .... LIQUID
        DENSITY ..... 63.60 LBS/CU. FT.
        ATTRIBUTES .... ORGANIC
        ELEMENTS PRESENT ..
        COMPOSITION ..... WATER
         GENERATION DATA ...
                                       QUANTITY (LBS)
                 EXPT. TOTAL
                                      73.50
                 DAILY RATE
                                         0.00
                 BATCH SIZE
                                          1.26
        RECLAMATION ACTION .. DISTILL
**** WASTE ITEM NO. 8 .... GAUZE
        STATE ..... SOLID
        DENSITY ..... 90.48 LBS/CU. FT.
         ATTRIBUTES .... NET
         ELEMENTS PRESENT ...
        COMPOSITION ..... C6H1005
         GENERATION DATA ...
                                        QUANTITY (LBS)
                 EXPT. TOTAL
                                          0.10
                 DAILY RATE
                                          0.00
                 BATCH SIZE
                                          0.00
        RECLAMATION ACTION .. N/R
```

```
S/C SUBSYSTEM .... BIOMEDICAL RESEARCH (B)
    GROUP KEY .... 3.5.1
** EQUIPMENT/EXPERIMENT NO. 2 .....CARDIOVASCULAR
*** WASTE SOURCE NO. 2 .... EFFECT OF BLOOD DISTRIBUTION ON ARTERIAL
                            PRESSURE CONTROL SYSTEMS
***** WASTE ITEM NO. 9 .... CONTACT PASTE
         STATE ..... SEMI SOLID
         DENSITY ..... 53.00 LBS/CU. FT.
         ATTRIBUTES .... PASTE
         ELEMENTS PRESENT ..
         COMPOSITION ..... KCL
         GENERATION DATA ...
                                        QUANTITY (LBS)
                  EXPT. TOTAL
                                           0.50
                  DAILY RATE
                                           0.00
                  BATCH SIZE
                                           0.01
         RECLAMATION ACTION .. COLLECT-REHYDRATE
*** WASTE ITEM NO. 10 .... SYRINGE
         STATE ..... SOLID
         DENSITY ..... 160.00 LBS/CU. FT.
         ATTRIBUTES .... GLASS
         ELEMENTS PRESENT ..
         COMPOSITION ..... SIO2
                                        QUANTITY (LBS)
         GENERATION DATA ...
                  EXPT. TOTAL
                                          10.80
                  DAILY RATE
                                           0.00
                  BATCH SIZE
                                           0.18
         RECLAMATION ACTION .. CLEAN, STERILIZE
**** WASTE ITEM NO. 11 ... NEEDLE
         STATE ...... SOLID
         DENSITY ..... 488.00 LBS/CU. FT.
         ATTRIBUTES ..... STEEL
         ELEMENTS PRESENT .. FE,C
         CCMPOSITION .....
         GENERATION DATA ...
                                        QUANTITY (LBS)
                  EXPT. TOTAL DAILY RATE
                                           0.20
                                           0.00
                  BATCH SIZE
                                           0.00
         PECLAMATICN ACTION .. CLEAN, STERILIZE
```

S/C SUBSYSTEM BIOMEDICAL RESEARCH (B) . GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 2CARDIOVASCULAR

**** WASTE SOURCE NO. 3 ALTERATIONS IN VENOUS COMPLIANCE DUE TO THE ABSENCE OF HYDROSTATIC PRESSURE

DOCUMENT NO. 3.5.1.2.3

REMARKS (1) FOR OPERATIONAL DESCRIPTION SEE DOCUMENT NO. A-3.5.1.2.2

***** WASTE ITEM NO. 1 DATA SHEETS

STATE SOLID

DENSITY 50.00 LBS/CU. FT.

ATTRIBUTES SHEETS

ELEMENTS PRESENT ...

COMPOSITION CELLULOSE

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL. 0.10
DAILY RATE 0.00
BATCH SIZE 0.00

```
S/C SUBSYSTEM .... BIOMEDICAL RESEARCH (B)
    3ROUP KEY .... 3.5.1
** E JUIPMENT/EXPERIMENT NO. 2 .....CARDIOVASCULAR
**** WASTE SOURCE NO. 4 ... CARDIAC DYNAMICS
         DOCUMENT NO. .... 3.5.1.2.4
         REMARKS ( 1) ..... FOR OPERATIONAL DESCRIPTION SEF DOCUMENT
                            NC. A-3.5.1.2.1
**** WASTE ITEM NO. 1 ... AUDIO TAPE
         STATE ..... SOLID
         DENSITY ..... 330.00 LBS/CU. FT.
         ATTRIBUTES ..... PLASTIC STRIP
         ELEMENTS PRESENT ..
         CEMPOSITION ..... ACLAR, FEO2
                                         QUANTITY (LBS)
         GENERATION DATA ...
                                           2.50
                  EXPT. TOTAL
                  DAILY RATE
                                           0.00
                  BATCH SIZE
                                           0.03
         RECLAMATION ACTION .. N/R
**** WASTE ITEM NO. 2 .... EKG PAPER/TAPE
         STATE ..... SOLID
         DENSITY ..... 44.00 LBS/CU. FT.
         ATTRIBUTES ..... STRIPS
         ELEMENTS PRESENT ..
         COMPOSITION ..... CELLULOSE
                                         QUANTITY (LBS)
         GENERATION DATA ...
                  EXPT. TOTAL DAILY RATE
                                           2.50
                                           0.00
                                           0.03
                  BATCH SIZE
         RECLAMATION ACTION .. N/R
**** ** WASTE ITEM NO. 3 .... INSTRUMENTS
         STATE ..... SOLID
         DENSITY ...... 185.00 LBS/CU. FT.
         ATTPIBUTES .....
         FLEMENTS PRESENT ..
         COMPOSITION ..... SIC2-FEC
                                         QUANTITY (LBS)
         GENERATION DATA ...
                  EXPT. TOTAL
                                          10.00
                  DAILY RATE
                                           0.00
```

BATCH SIZE RECLAMATION ACTION .. REPAIR

10.00

S/C SUBSYSTEM BIOMEDICAL RESEARCH (B) GROUR KEY 3.5.1 ** EQUIPMENT/EXPERIMENT NO. 2CARDIOVASCULAR **** WASTE SOURCE NO. 4 CARDIAC DYNAMICS ***** WASTE ITEM NO. 4 CONTACT PASTE STATE SEMI SOLID DENSITY 53.00 LBS/CU. FT. ATTRIBUTES PASTE ELEMENTS PRESENT ... COMPOSITION KCL GENERATION DATA ... QUANTITY (LBS) EXPT. TOTAL 0.50 DAILY RATE 0.00 BATCH SIZE 0.01 RECLAMATION ACTION .. COLLECT-REHYDRATE ***** WASTE ITEM NO. 5 DATA SHEETS STATE SOLID DENSITY 4.60 LBS/CU. FT. ATTRIBUTES SHEETS ELEMENTS PRESENT ... COMPOSITION CELLULOSE GENERATION DATA ... QUANTITY (LBS) EXPT. TOTAL 0.50

0.00

0.01

DAILY RATE

BATCH SIZE

S/C SUBSYSIEM BIOMEDICAL RESEARCH (B) 3ROUP KEY 3.5.1

** E JUIPMENT/EXPERIMENT NO. 2CARDIOVASCULAR

**** WASTE SOURCE NO. 5 INTRAOCULAR ARTERIAL BLOCD PRESSURE

DOCUMENT NJ. 3.5.1.2.5

REMARKS (1) FOR OPERATIONAL DESCRIPTION SEE DOCUMENT NC. A-3.5.1.2.2

**** WASTE ITEM NO. I DATA SHEETS

STATE SOLID

DENSITY 44.00 LBS/CU. FT.

ATTRIBUTES SHEETS

ELEMENTS PRESENT ..

COMPOSITION CELLULOSE

GENERATION DATA ... QUANTITY (LBS) EXPT. TOTAL 1.00 DAILY RATE 0.00 BATCH SIZE 0.90

RECLAMATION ACTION .. N/R

★***

WASTE ITEM NO. 2 INSTRUMENTATION

STATE SOLID

DENSITY 180.00 LBS/CU. FT.

ATTRIBUTES

ELEMENTS PRESENT ...

COMPOSITION METAL, PLASTIC

CENERATION DATA ... QUANTITY (LBS) EXPT. TOTAL 3.00

DAILY RATE 0.00 BATCH SIZE 1.00

RECLAMATION ACTION .. REPAIR

S/C SUBSYSTEM BIOMEDICAL RESEARCH (B) GROUP KEY 3.5.1 ** EQUIPMENT/EXPERIMENT NO. 2CARDIOVASCULAR **** WASTE SOURCE NO. 6 ... CARDIAC OUTPUT DIRECT VERSUS INDIRECT DOCUMENT NO. 3.5.1.2.6 REFERENCE NO. 1 .. EXPERIMENT PROGRAM FOR EXTENDED EARTH OR BITAL MISSIONS, REVISION NO. 1, SEPTEMBE R 1, 1969, NASA OMSF. **** WASTE ITEM NO. 1 ... DATA SHEETS STATE SOLID DENSITY 72.00 LBS/CU. FT. ATTRIBUTES SHEETS **ELEMENTS PRESENT ...** COMPOSITION CELLULOSE GENERATION DATA ... QUANTITY (LBS) EXPT. TOTAL 1.00 DAILY RATE 0.00 BATCH SIZE 0.04 RECLAMATION ACTION .. N/R ***** WASTE ITEM NO. 2 FOOD PARTICLES STATE SOLID DENSITY 95.00 LBS/CU. FT. ATTRIBUTES AEROSOLS AND BITS ELEMENTS PRESENT .. COMPOSITION CHON GENERATION DATA ... QUANTITY (LBS) EXPT. TOTAL 5.00 DAILY RATE 0.01 BATCH SIZE 0.01 RECLAMATION ACTION .. N/R ***** WASTE ITEM NO. 3 CAPILLARY TUBES STATE SOLID DENSITY 160.00 LBS/CU. FT. ATTRIBUTES TUBES-GLASS **ELEMENTS PRESENT ..** COMPOSITION SIO2 QUANTITY (LBS) GENERATION DATA ... EXPT. TOTAL 0.25 DAILY RATE 0.00

0.01

BATCH SIZE

RECLAMATION ACTION .. WASH, STERILIZE

S/C SUBSYSTEM BIOMEDICAL RESEARCH (B) 3ROUP KEY 3.5.1 ** EQUIPMENT/EXPERIMENT NO. 2CARDIOVASCULAR *** WASTE SOURCE NO. 6 CARDIAC OUTPUT DIRECT VERSUS INDIRECT ***** WASTE ITEM NO. 4 ... CENTRIFUGE TUBES STATE SCLID DENSITY 16C.00 LBS/CU. FT. ATTRIBUTES CONTAINER GLASS ELEMENTS PRESENT .. COMPOSITION SIC2 GENERATION DATA ... QUANTITY (LBS) EXPT. TOTAL 3.00 DAILY RATE 0.00 BATCH SIZE 0.12 RECLAMATION ACTION .. WASH, STERILIZE ***** WASTE ITEM NO. 5 ... CONTACT PASTE STATE SFMI SOLID DENSITY 53.00 LBS/CU. FT. ATTRIBUTES ELEMENTS PRESENT .. K,CL COMPOSITION GENERATION DATA ... QUANTITY (LBS) EXPT. TOTAL 0.25 DAILY RATE 0.00 BATCH SIZE 0.01 RECLAMATION ACTION .. COLLECT REHYDRATE **** WASTE ITEM NO. 6 ... NASTE WATER STATE LIQUID DENSITY 62.40 LBS/CU. FT. ATTRIBUTES ELEMENTS PRESENT .. COMPOSITION WATER GENERATION DATA ... QUANTITY (LBS) EXPT. TOTAL 7.00 DAILY RATE 0.02 BATCH SIZE 0.02 RECLAMATION ACTION .. DISTILL

S/C SUBSYSTEM BIOMEDICAL RESEARCH (B) GROUP KEY 3.5.1 ** EQUIPMENT/EXPERIMENT NO. 2CARDIOVASCULAR **** WASTE SOURCE NO. 6 CARDIAC OUTPUT DIRECT VERSUS INDIRECT ***** WASTE ITEM NO. 7 SYRINGE STATE SOLID DENSITY 160.00 LBS/CU. FT. ATTRIBUTES GLASS ELEMENTS PRESENT .. COMPOSITION SIO2 QUANTITY (LBS) GENERATION DATA ... EXPT. TOTAL 3,00 DAILY RATE 0.00 BATCH SIZE 0.12 RECLAMATION ACTION .. WASH.STERILIZE ***** WASTE ITEM NO. 8 ... NEEDLE STATE SOLID DENSITY 488.00 LBS/CU. FT. ATTRIBUTES STEEL TUBE ELEMENTS PRESENT .. FE,C COMPOSITION QUANTITY (LBS) GENERATION DATA ... EXPT. TOTAL 0.10 DAILY RATE 0.00 BATCH SIZE 0.00 RECLAMATION ACTION .. WASH STERILIZE ***** WASTE ITEM NO. 9 GAUZE STATE SOLID DENSITY 90.50 LBS/CU. FT. ATTRIBUTES COTTON ELEMENTS PRESENT .. COMPOSITION CELLULOSE GENERATION DATA ... QUANTITY (LBS) EXPT. TOTAL 0.30 DAILY RATE 0.00 BATCH SIZE 0.01 RECLAMATION ACTION .. N/R

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S/C SUBSYSTEM .... BIOMEDICAL RESEARCH (B)
    3ROUP KEY .... 3.5.1
```

** E JUIPMENT/EXPERIMENT NO. 2CARDIOVASCULAR
*** WASTE SOURCE NO. 6 ... CARDIAC DUTPUT DIRECT VERSUS INDIRECT

**** WASTE ITEM NO. 10 INSTRUMENTS STATE SOLID

DENSITY C.OO LBS/CU. FT.

ATTRIBUTES GLASS METAL ELEMENTS PRESENT .. SI,02,FE,C

COMPOSITION

GENERATION DATA ... QUANTITY (LBS) EXPT. TOTAL DAILY RATE 4.00 0.00 0.15 BATCH SIZE

RECLAMATION ACTION .. REPAIR

***** WASTE ITEM NO. 11 URINE STATE LICUID

DENSITY 62.40 LBS/CU. FT.

ATTRIBUTES

ELEMENTS PRESENT ..

COMPOSITION WATER

QUANTITY (LBS) GENERATION DATA ... EXPI. TOTAL 50.00 DAILY RATE 0.14 BATCH SIZE 0.14

RECLAMATION ACTION .. DISTILL

***** WASTE ITEM NO. 12 FECES

STATE SEMI SOLID

DENSITY 66.00 LBS/CU. FT.

ATTRIBUTES

ELFMENTS PRESENT .. C.h.O.N

COMPOSITION

GENERATION DATA ... QUANTITY (LBS) EXPT. TOTAL 32.40 DAILY RATE 0.09 BATCH SIZE 0.09

```
S/C SUBSYSTEM .... BIOMEDICAL RESEARCH (B)
   GROUP KEY .... 3.5.1
** EQUIPMENT/EXPERIMENT NO. 2 .....CARDIOVASCULAR
**** WASTE SOURCE NO. 6 ... CARDIAC OUTPUT DIRECT VERSUS INDIRECT
***** WASTE ITEM NO. 13 .... LITTER
        STATE ..... SOLID
        DENSITY ..... 43.00 LBS/CU. FT.
        ATTRIBUTES .....
        ELEMENTS PRESENT ..
        COMPOSITION .....
                                       QUANTITY (LBS)
        GENERATION DATA ...
                 EXPT. TOTAL
                                        15.00
                 DAILY RATE
                                         0.04
                 BATCH SIZE
                                         0.04
        RECLAMATION ACTION .. N/R
***** WASTE ITEM NO. 14 .... 2 MINATURE SWINE
        STATE ..... SOLID
        DENSITY ..... 0.00 LBS/CU. FT.
        ATTRIBUTES .....
        ELEMENTS PRESENT ..
        COMPOSITION ..... PROTEIN-MINERALS
        GENERATION DATA ...
                                       QUANTITY (LBS)
                 EXPT. TOTAL
                                         4.00
                 DAILY RATE
                                         0.00
                 BATCH SIZE
                                         0.00
        RECLAMATION ACTION .. N/R
```

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S/C SUBSYSTEM .... BIOMEDICAL RESEARCH (B) 3POUP KEY .... 3.5.1
```

**** WASTF SOURCE NO. 7 USE CF A LBNP DEVICE TO PREVENT C.V. DEC

DOCUMENT NO. 3.5.1.2.7

REFERENCE NO. 1 .. MEDICAL ASPECTS OF AN ORBITING RESEARCH LABCRATORY, NASA SPACE MEDICINE ADVISORY SROUP, NASA REPORT NC. P-86, 1966.

REFERENCE NO. 2 .. NASA EXPERIMENT DESCRIPTIONS FOR EXTENDE D APOLLO EARTH-ORBIT FLIGHTS, NASA HEACO UAPTERS, WASHINGTON, D.C., MARCH 1965.

REFERENCE NO. 3 .. EXPERIMENT PROGRAM FOR EXTENDED EARTH OR BITAL MISSIONS, REVISION NO. 1, SEPTEMBE R 1,1969, NASA OMSF.

***** WASTE ITEM NO. 1 CONTACT PASTE

STATE SEMI SOLID

DENSITY 53.00 LBS/CU. FT.

ATTRIBUTES

ELEMENTS PRESENT .. K.CL

COMPOSITION

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.25
DAILY RATE 0.00
BATCH SIZE 0.00

RECLAMATION ACTION .. CCLLECT-REHYDRATE

***** WASTE ITEM NO. 2 DATA SHEFTS

STATE SOLIP

DENSITY 72.00 LBS/CU. FT.

ATTRIBUTES SHEET OR STRIP

ELFMENTS PRESENT ..

CCTPOSITION CELLULGSE

GENERATION DATA ... - QUANTITY (LBS)

EXPT. TOTAL 1.00
DAILY RATE 0.00
BATCH SIZE 0.02

```
S/C SUBSYSTEM .... BIOMEDICAL RESEARCH (B)
   GROUP KEY .... 3.5.1
** EQUIPMENT/EXPERIMENT NO. 2 .....CARDIOVASCULAR
**** WASTE SOURCE NO. 7 .... USE OF A LBNP DEVICE TO PREVENT C.V. DEC
                          ONDITIONING
***** WASTE ITEM NO. 3 .... SPIROMETER
        STATE ..... SOLID
        DENSITY ..... 68.60 LBS/CU. FT.
        ATTRIBUTES ..... PLASTIC TUBE
        ELEMENTS PRESENT ..
        COMPOSITION ..... COPOLYVINYL, CHLORIDE, ACETATE
                                        QUANTITY (LBS)
        GENERATION DATA ...
                 EXPT. TOTAL
                                          45.00
                 DATLY RATE
                                          0.00
                 BATCH SIZE
                                          0.09
        RECLAMATION ACTION .. CAN BE STERILIZED
**** WASTE ITEM NO. - 4 ... INSTRUMENTATION
        STATE ..... SOLID
        DENSITY ..... 166.00 LBS/CU. FT.
        ATTRIBUTES ..... METAL, GLASS
        ELEMENTS PRESENT ...
        COMPOSITION ..... SI 02 FEC
        GENERATION DATA ...
                                        QUANTITY (LBS)
                 EXPT. TOTAL
                                           5.00
                 DAILY RATE
                                          0.00
                 BATCH SIZE
                                          0.08
        RECLAMATION ACTION .. REPAIR.
```

S/C SUBSYSTEM BI DMEDICAL RESEARCH (B) ORCUP KEY 3.5.1

**** WASTE SOURCE NO. 8 USE OF AN ON-BOARD CENTPIFUGE TO PREVENT C.V. DECONDITIONING

DOCUMENT NO.

REMARKS (1) FOR OPERATIONAL DESCRIPTION SEE DOCUMENT NC. A-3.5.1.2.7

**** WASTE ITEM NO. 1 MOVIE FILM

STATE SOLID

DENSITY 83.00 LBS/CU. FT.

ATTRIBUTES PLASTIC

ELFMENTS PRESENT ..

ł

COMPOSITION ACLAR SILVER EMULSION

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 4.50 DAILY RATE 0.01 BATCH SIZE 0.01

RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 2 CONTACT PASTE

STATE SEMI SOLID

DENSITY 53.00 LBS/CU. FT.

ATTRIBUTES

ELEMENTS PRESENT ..

COMPOSITION KCL

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.25
DAILY RATE 0.00
BATCH SIZE 0.00

RECLAMATION ACTION .. COLLECT-REHYDRATE

**** ** WASTE ITEM NC. 3 SPIRGMETER MOUTHPIECE

STATE SOLID

DENSITY 68.60 LBS/CU. FT.

ATTRIBUTES PLASTIC TUBES

ELEMENTS PRESENT ..

CCMPOSITION COPOLYVINYL, CHLORIDE, ACETATE

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 45.00 DAILY RATE 0.12 BATCH SIZE 0.12

RECLAMATION ACTION .. CAN BE WASH/STERILIZED

S/C SUBSYSTEM BIOMEDICAL RESEARCH (B) GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 2CARDIOVASCULAR

**** WASTE SOURCE NO. 8 USE OF AN ON-BOARD CENTRIFUGE TO PREVENT

C.V. DECONDITIONING

**** WASTE ITEM NO. 4 ... INSTRUMENTATION

STATE SOLID

DENSITY 166.00 LBS/CU. FT.

ATTRIBUTES GLASS, METAL ELEMENTS PRESENT .. SI, 02, FE, C

COMPOSITION

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 10.00 DAILY RATE 0.03 BATCH SIZE 0.03

RECLAMATION ACTION .. REPAIR

***** WASTE ITEM NO. 5 DATA SHEETS

STATE SOLID

DENSITY 72.00 LBS/CU. FT.

ATTRIBUTES SHEETS

ELEMENTS PRESENT ..

COMPOSITION CELLULOSE

GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 1.00

DAILY RATE 0.00
BATCH SIZE 0.00

RECLAMATION ACTION .. N/R

** MANNED SPACECRAFT WASTE GENERATION DATA **

```
S/C SUBSYSTEM .... BIOMEDICAL RESEARCH (B)
    GROUP KEY .... 3.5.1
** F)UIPMENT/EXPERIMENT NO. 2 ......CARDIOVASCULAR
女孩上 水 医全球栓形状式 片关 经水水 溶香 灰尔林 全水水水水 在水中 全水水 水水水水水水水水水水水水水水水水水水水水水 计完全 水水木
* ** WASTE STURCE NO. 9 ... USE OF OCCLUSIVE CUFFS TO PREVENT C.V. D
                            ECCNDITIONING
         DOCUMENT NO. .... 3.5.1.2.9
         REMARKS ( 1) ..... FOR OPERATIONAL DESCRIPTION SEE DOCUMENT
                              NC. A-3.5.1.2.7
*** * * WASTE ITEM NO. 1 .... MOVIE FILM
         STATE ..... SOLID
         DENSITY ..... 83.00 LBS/CU. FT.
         ATTRIBUTES ..... PLASTIC
         ELEMENTS PRESENT ..
         CCMPOSITION .... ACLAR, SILVER, EMULSION
         GENERATICY DATA ...
                                           QUANTITY (LBS)
                  _EXPT. TOTAL
                                              4.50
                   DAILY GATE
                                              0.01
                   BATCH SIZE
                                              0.01
         PECLAMATION ACTION .. N/R
***** WASTE ITEM NO. 2 ... CONTACT PASTE
         STATE ..... SEMI SOLID
         DENSITY ...... 53.00 LBS/CU. FT.
         ATTRIBUTES .....
         ELEMENTS PRESENT ..
         COMPOSITION .... K CL
                                           QUANTITY (LBS)
         GENERATION DATA ...
                   EXPT. TOTAL
                                              0.25
                   DAILY RATE
                                              0.00
                   BATCH SIZE
                                              0.00
         RECLAMATION ACTION .. COLLECT-REHYDRATE
**** WASTE ITEM NO. 3 .... SPIRCMETER MOUTHPIECE
         STATE ..... SOLID
         DENSITY ..... 68.60 LBS/CU. FT.
         ATTPIBUTES ..... PLASTIC TUBES
         ELEMENTS PRESENT ..
         COMPOSITION ..... COPCLYVINYL CHLORIDE ACETATE
         GENERATION DATA ...
                                           QUANTITY (LBS)
                   EXPT. TOTAL
                                             45.00
                   DAILY RATE
                                              0.12
                   BATCH SIZE
                                              0.12
         RECLAMATION ACTION .. CAN BE WASH/STERILIZED
```

S/C SUBSYSTEM BIOMEDICAL RESEARCH (B)

GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 2CARDIOVASCULAR **** WASTE SOURCE NO. 9 USE OF OCCLUSIVE CUFFS TO PREVENT C.V. D **ECONDITIONING**

**** WASTE ITEM NO. 4 INSTRUMENTATION

STATE SOLID

DENSITY 27C.00 LBS/CU. FT. ATTRIBUTES GLASS, METAL ELEMENTS PRESENT .. SI -02 FEC

COMPOSITION

GENERATION DATA ... QUANTITY (LBS)

> EXPT. TOTAL 10.00 DAILY RATE 0.03 BATCH SIZE 0.03

RECLAMATION ACTION .. REPAIR

S/C SUBSYSTEM 3IOMEDICAL RESEARCH (B) 3RCUP KEY 3.5.1

**** WASTE SOURCE NO. 10 C.V. RESPONSE TO SHOCK THERAPY

DOCUMENT NO. 3.5.1.2.10

REFERENCE NO. 1 .. EXPERIMENT PROGRAM FOR EXTENDED EARTH OR BITAL MISSIONS, REVISION NO.1, SEPTEMBER 1,1969, NASA, OMSF.

**** * WASTE ITEM NO. 1 2 MINIATURE SWINE

STATE ****** SOLID

DENSITY C.00 LBS/CU. FT.

ATTRIBUTES

ELEMENTS PRESENT .. Coh, GoN

COMPOSITION

GENERATION DATA ... QUANTITY (LES)

EXPT. FCTAL 4.00
DAILY RATE 0.00
BATCH SIZE 0.00

RECLAMATION ACTION .. N/R

**** ** WASTE ITEM NO. 2 ... DATA SHEETS

STATE SOLID

DENSITY 72.00 LBS/CU. FT.

ATTRIBUTES SHEETS

FLEMENTS PRESENT ..

CCMPOSITION CELLULOSE

- GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.20
DAILY RATE 0.00
BATCH SIZE 0.10

RECLAMATION ACTION .. N/R

**** WASTE ITEM NO. 3 CONTACT PASTE

STATE SEMI SOLID

TENSITY 53.00 LBS/CU. FT.

ATTRIBUTES

ELEMENTS PRESENT ..

COMPOSITION KCL

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.25
DAILY RATE 0.00
BATCH SIZE 0.13

RECLAMATION ACTION .. COLLECT REHYDRATE

```
S/C SUBSYSTEM .... BIOMEDICAL RESEARCH (B)
   GROUP KEY .... 3.5.1
** EQUIPMENT/EXPERIMENT NO. 2 ....CARDIOVASCULAR
**** WASTE SOURCE NO. 10 .... C.V. RESPONSE TO SHOCK THERAPY
*************************
***** WASTE ITEM NO. 4 .... SYRINGE
         STATE ..... SOLID
         DENSITY ..... 160.00 LBS/CU. FT.
         ATTRIBUTES ..... GLASS TUBE
         ELEMENTS PRESENT ..
         COMPOSITION ..... SI 02
         GENERATION DATA ...
                                         QUANTITY (LBS)
                  EXPT. TOTAL
                                            3.00
                  DAILY RATE
                                            0.00
                  BATCH SIZE
                                            1.50
         RECLAMATION ACTION .. WASH STERILIZE
**** WASTE ITEM NO. 5 .... NEEDLE
         STATE ..... SOLID
         DENSITY ..... 488.00 LBS/CU. FT.
         ATTRIBUTES .....
         ELEMENTS PRESENT .. FE .C
         COMPOSITION .....
         GENERATION DATA ...
                                         QUANTITY (LBS)
                  EXPT. TOTAL
                                            0.10
                  DAILY RATE
                                            0.00
                  BATCH SIZE
                                            0.05
         RECLAMATION ACTION .. WASH STERILIZE
**** WASTE ITEM NO. 6 .... GAUZE
         STATE ..... SOLID
         DENSITY ..... 90.48 LBS/CU. FT.
         ATTRIBUTES .....
         ELEMENTS PRESENT ...
         COMPOSITION ..... CELLULOSE
         GENERATION DATA ...
                                         QUANTITY (LBS)
                  EXPT. TOTAL
                                            0.03
                  DAILY RATE
                                            0.00
                  BATCH SIZE
                                            0.15
         RECLAMATION ACTION .. N/R
```

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S/C SUBSYSTEM .... BIGMEDICAL RESEARCH (B)
    380UP KEY .... 3.5.1
** E JUIPMENT/EXPERIMENT NO. 2 .....CARDIOVASCULAR **** WASTE SOURCE NO. 10 .... C.V. RESPONSE TO SHCCK THERAPY
**** WASTE ITEM NO. 7 .... CAPILLARY TUBES
         STATE ..... SCLID
         DENSITY ...... 160.00 LBS/CU. FT.
         ATTRIBUTES ......
         ELEMENTS PRESENT .. SI 02
         COMPOSITION .....
                                         QUANTITY (LBS)
         GENERATION DATA ...
                   EXPT. TOTAL
                                             0.50
                   DAILY RATE
                                             0.00
                   BATCH SIZE
                                             0.25
         RECLAMATION ACTION .. WASH
**** WASTE ITEM NO. 8 .... CENTRIFUCE TUBES
         STATE ..... SOLID
         DENSITY ..... 160.00 LBS/CU. FT.
         ATTRIBUTES ......
         ELEMENTS PRESENT .. SI 02
         CCMPOSITION .....
                                          QUANTITY (LBS)
         GENERATION DATA ...
                   EXPT. TOTAL DAILY RATE
                                             0.50
                                             0.00
                                             0.25
                   BATCH SIZE
         RECLAMATION ACTION .. WASH
***** WASTE ITEM NO. 9 .... LITTER
         STATE ..... SOLID
         DENSITY ..... 43.00 LBS/CU. FT.
         ATTRIBUTES .....
         ELEMENTS PRESENT ..
         CCMPOSITION .....
                                           QUANTITY (LBS)
         GENERATION DATA ...
                   EXPT. TOTAL
                                            10.00
                   DAILY RATE
                                             0.70
                   BATCH SIZE
                                             0.70
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```
S/C SUBSYSTEM .... BIOMEDICAL RESEARCH (B)
   GROUP KEY .... 3.5.1
** EQUIPMENT/EXPERIMENT NO. 2 .....CARDIOVASCULAR
**** WASTE SOURCE NO. 10 .... C.V. RESPONSE TO SHOCK THERAPY
***** WASTE ITEM NO. 10 .... REACTANT CHEMICALS
         STATE ..... SOLID OR LIQUID
         DENSITY ..... 70.00 LBS/CU. FT.
         ATTRIBUTES .....
         ELEMENTS PRESENT ..
         COMPOSITION ..... NA2S2O4-NAOH OH KOH-K3FE (CN)6
         GENERATION DATA ...
                                       QUANTITY (LBS)
                  EXPT. TOTAL
                                           1.00
                  DAILY RATE
                                           0.00
                                           0.50
                  BATCH SIZE
         RECLAMATION ACTION .. N/R
***** WASTE ITEM NO. 11 .... MOUTHPIECES
         STATE ..... SOLID
         DENSITY ..... 68.60 LBS/CU. FT.
         ATTRIBUTES .... PLASTIC
         ELEMENTS PRESENT ..
         COMPOSITION ..... COPOLYVINYL CHLORIDE ACETATE
         GENERATION DATA ...
                                        QUANTITY (LBS)
                  EXPT. TOTAL
                                           0.25
                  DAILY RATE
                                           0.00
                  BATCH SIZE
                                           0.13
         RECLAMATION ACTION .. WASH STERILIZE
***** WASTE ITEM NO. 12 .... URINE
         STATE ..... LIQUID
         DENSITY ..... 62.40 LBS/CU. FT.
         ATTRIBUTES .....
         ELEMENTS PRESENT ..
         COMPOSITION ..... WATER
         GENERATION DATA ...
                                        QUANTITY (LBS)
                  EXPT. TOTAL /
                                           2.00
                  DAILY RATE
                                           0.14
                  BATCH SIZE
                                           0.14
         RECLAMATION ACTION .. DISTILL
```

S/C SUBSYSTEM BIOMEDICAL RESEARCH (B) GROUP KEY 3.5.1

** FQUIPMENT/EXPERIMENT NO. 2CARDIOVASCULAR
**** WASTE SOURCE NO. 10 C.V. RESPONSE TO SHOCK THERAPY

**** ** WASTE ITEM NO. 13 FECES

STATE SEM1 SOLID

DENSITY 62.00 LBS/CU. FT.

ATTRIBUTES

ELEMENTS PRESENT ..

COMPOSITION PRCTEIN

QUANTITY (LBS) GENERATION DATA ... EXPT. TOTAL 3.00 DAILY RATE 0.21 BATCH SIZE 0.21

RECLAMATION ACTION .. N/R

*** ** WASTE ITEM NO. 14 WASTE WATER

STATE LIQUID

DENSITY 62.40 LBS/CU. FT.

ATTRIBUTES ELEMENTS PRESENT ..

COMPOSITION WATER

GENERATION DATA ... QUANTITY (LBS) EXPT. TOTAL 0.40 DAILY RATE 0.02 BATCH SIZE 0.02

RECLAMATION ACTION .. DISTILL

S/C SUBSYSTEM BIOMEDICAL RESEARCH (B) GROUP KEY 3.5.1

**** WASTE SOURCE NO. 11 SENSITIVITY OF THE CAROTID SINUS-ARTERIA L PRESSURE CONTROL LOOP

DOCUMENT NO. 3.5.1.2.11

REFERENCE NO. 1 .. MEDIGAL ASPECTS OF AN ORBITING RESFARCH LABORATORY, NASA SPACE MEDICINE ADVISORY GROUP, NASA REPORT NO. SP-86,1966.

REFERENCE NO. 2 .. EXPERIMENT PROGRAM FOR EXTENDED EAPTH OR BITAL MISSIONS, REVISION NO. 1, SEPTEMBE R 1, 1969, NASA OMSF.

**** WASTE ITEM NO. 1 ECG DATA TAPE

STATE SOLID

DENSITY 72.00 LBS/CU. FT.

ATTRIBUTES PAPER STRIP

ELEMENTS PRESENT ..

COMPOSITION CELLULOSE

GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.30
DAILY RATE 0.00
BATCH SIZE 0.00

RECLAMATION ACTION .. N/R

**** WASTE ITEM NO. 2 MOUTHPIECE

STATE SOLID

DENSITY 68.60 LBS/CU. FT.

ATTRIBUTES PLASTIC TUBE

ELEMENTS PRESENT ...

COMPOSITION COPOLYVINYL CHLORIDE ACETATE

GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 3.00
DAILY RATE 0.00

BATCH SIZE 0.05

RECLAMATION ACTION .. WASH

QUANTITY (LBS)

1.50

0.00

0.03

COMPOSITION NYLON-TEFLON

EXPT. TOTAL

DAILY RATE

BATCH SIZE

RECLAMATION ACTION .. REPAIR

GENERATION DATA ...

S/C SUBSYSTEM BIOMEDICAL RESEARCH (B) 3ROUP KEY 3.5.1

**** WASTE SOURCE NO. 12 PERIPHERAL ARTERIAL REACTIVITY

DOCUMENT NO. 3.5.1.2.12

**** WASTE ITEM NO. , 1 DATA SHEETS

STATE SOLID

DENSITY 72.00 LBS/CU. FT.

ATTRIBUTES PAPER SHEETS

ELEMENTS PRESENT ...

COMPOSITION CELLULOSE

GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.50
DAILY RATE 0.00
BATCH SIZE 0.01

RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 2 COLOR FILM

STATE SOLID

DENSITY 83.00 LBS/CU. FT.

ATTRIBUTES PLASTIC STRIPS

ELEMENTS PRESENT ..

COMPOSITION ACLAR-SILVER IDDIDE

GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 1.00

DAILY RATE 0.00
BATCH SIZE 0.03

RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 3 INSTRUMENTS

STATE SOLID

DENSITY 166.00 LBS/CU. FT.

ATTRIBUTES METAL-PLASTIC-GLASS

ELEVENTS PRESENT ...

COMPOSITION SI OZ FEC (CH2 CH2)

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 5.00
DAILY RATE 0.00
BATCH SIZE 0.13

RECLAMATION ACTION .. REPAIR

```
S/C SUBSYSTEM .... BIOMEDICAL RESEARCH (B) SROUP KEY .... 3.5.1
```

**** WASTE SOURCE NO. 13 CHANGES IN BLOOD VOLUME AND DISTRIBUTION

DOCUMENT NO. 3.5.1.2.13

REFFRENCE NO. 1 .. EXPERIMENT PROGRAM FOR EXTENDED EARTH OR BITAL MISSIONS, REVISION NO. 1, SEPTEMBE R 1,1969, NASA OMSE.

* xxx xx WASTE ITEM NO. 1 ... EQUIPMENT

STATE SOLID

DENSITY 260.00 LBS/CU. FT.

ATTRIBUTES VARIED

ELEMENTS PRESENT ..

COMPOSITION VARIED

GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 10.00
DAILY RATE 0.00
BATCH SIZE 0.15

RECLAMATION ACTION .. REPAIR

**** ** WASTE ITEM NO. 2 R/A TRACERS

STATE LIQUID

DENSITY 80.00 LBS/CU. FT.

ATTPIBUTES CHEMICALS

ELEMENTS PRESENT ..

COMPOSITION DFP32 CR31

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 1.00
DAILY RATE 0.00
BATCH SIZE 0.01

RECLAMATION ACTION .. N/R

**** VASTE ITEM NO. 3 SYRINGE

STATE SGLID

DENSITY 160.00 LBS/CU. FT.

ATTRIBUTES GLASS ELEMENTS PRESENT .. \$1.02

CGMPOSITION

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 4.00
DAILY RATE 0.00
BATCH SIZE 0.06

RECLAMATION ACTION .. WASH

```
S/C SUBSYSTEM .... BIOMEDIGAL RESEARCH (B)
    3ROUP KEY .... 3.5.1
** EQUIPMENT/EXPERIMENT NO. 2 .....CARDIOVASCULAR
**** WASTE SOURCE NO. 13 .... CHANGES IN BLOOD VOLUME AND DISTRIBUTION
***** WASTE ITEM NO. 4 .... NEEDLES
         STATE ..... SOLID
         DENSITY ..... 488.00 LBS/CU. FT.
         ATTRIBUTES .... STEEL
         ELEMENTS PRESENT .. FE,C
         COMPOSITION .....
         GENERATION DATA ...
                                       QUANTITY (LBS)
                  EXPT. TOTAL
                                          0.20
                  DAILY RATE
                                           0.00
                  BATCH SIZE
                                           0.00
         RECLAMATION ACTION .. WASH
***** WASTE ITEM NO. 5 .... GAUZE
         STATE ..... SOLID
         DENSITY ..... 90.48 LBS/CU. FT.
         ATTRIBUTES .....
         ELEMENTS PRESENT ...
         COMPOSITION ..... CELLULOSE
                                        QUANTITY (LBS)
         GENERATION DATA ...
                  EXPT. TOTAL
                                           0.40
                  DAILY RATE
                                           0.00
                                           0.01
                  BATCH SIZE
         RECLAMATION ACTION .. N/R
***** WASTE ITEM NO. 6 .... BLOOD
         STATE ..... LIQUID
         DENSITY ..... 65.52 LBS/CU. FT.
         ATTRIBUTES .....
         ELEMENTS PRESENT ...
         COMPOSITION ..... PROTEIN
         GENERATION DATA ...
                                        QUANTITY (LBS)
                  EXPT. TOTAL
                                           1.00
                  DAILY RATE
                                           0.00
                  BATCH SIZE
                                           0.01
         RECLAMATION ACTION .. N/R
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S/C SUBSYSTEM .... BIOMEDICAL RESEARCH (B)
   3ROUP KEY .... 3.5.1
** EJLIPMENT/EXPERIMENT NO. 2 .....CARDIOVASCULAR
*** NASTE SOURCE NO. 13 .... CHANGES IN BLOCD VOLUME AND DISTRIBUTION
**** WASTE ITEM AD. 7 .... URINE
        STATE ..... LIGUID
        DENSITY ..... 64.00 LBS/CU. FT.
        ATTRIBUTES .....
        ELEMENTS PRESENT ..
        COMPOSITION ..... WATER
        GENERATION DATA ...
                                        QUANTITY (LBS)
                 EXPT. TOTAL
                                          40.00
                 DAILY RATE
                                          0.10
                 BATCH SIZE
                                          0.10
        RECLAMATION ACTION .. DISTILL
**** WASTE ITEM NO. 8 ... CHEM.FOR MICRO KJELDAHL-FOLIN CREATININE
         STATE ..... LIQUID
        DENSITY ..... SC. OO LBS/CU. FT.
        ATTRIBUTES .....
        ELEMENTS PRESENT ..
        COMPOSITION ..... H2SO4-NH4CH 2(K1)2HGI2 KOH P1CFATE-OXALA
                          TE AL6ST2013 ETC.
         GENERATION DATA ...
                                        QUANTITY (LBS)
                 EXPT. TOTAL
                                          7.00
                 DAILY RATE
                                           0.00
                 BATCH SIZE
                                          0.12
        RECLAMATION ACTION .. N/R
**** WASTE ITEM NO. 9 .... CAPILLARY TUBES
         STATE ..... SOLID
        DENSITY ..... 160.00 LBS/CU. FT.
         ATTRIBUTES ..... GLASS
        ELEMENTS PRESENT .. SI,02
        COMPOSITION .....
         GENERATION DATA ...
                                        QUANTITY (LBS)
                 EXPT. TOTAL
                                          0.50
                 DAILY RATE
                                          0.00
                 BATCH SIZE
                                          0.01
        RECLAMATION ACTION .. N/R
```

RUN NO. ** 2 ** 11/30/70 **PAGE 392** S/C SUBSYSTEM BIOMEDICAL RESEARCH (B) 3ROUP KEY 3.5.1 ** EQUIPMENT/EXPERIMENT NO. 2CARDIOVASCULAR **** WASTE SOURCE NO. 14 ... CAROTID BARDRECEPTOR ELECTRICAL ACTIVITY IN PRIMATES DOCUMENT NO. REMARKS (1) FOR OPERATIONAL DESCRIPTION SEE DOCUMENT NO. A-3.5.1.2.10 **** WASTE ITEM NO. 1 FOGD PARTICLES STATE SOLID DENSITY 95.00 LBS/CU. FT. ATTRIBUTES AEROSOL ELEMENTS PRESENT .. C,H,O,N COMPOSITION GENERATION DATA ... QUANTITY (LBS) EXPT. TOTAL 10.00 DAILY RATE 0.04 BATCH SIZE 0.04 RECLAMATION ACTION .. N/R **** WASTE ITEM NO. 2 R/A ISOTOPES STATE LIQUID DENSITY 64.00 LBS/CU. FT. ATTRIBUTES CHEMICALS ELEMENTS PRESENT .. COMPOSITION DFP32, CR31 GENERATION DATA ... QUANTITY (LBS) EXPT. TOTAL 0.75 DAILY RATE 0.00 BATCH SIZE 0.01 RECLAMATION ACTION .. N/R **** WASTE ITEM NO. 3 WASTE WATER STATE LIQUID DENSITY 62.40 LBS/CU. FT. ATTRIBUTES ELEMENTS PRESENT .. COMPOSITION WATER GENERATION DATA ... QUANTITY (LBS)

4.00

0.02

0.02

EXPT. TOTAL

DAILY RATE

BATCH SIZE

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S/C SUBSYSTEM .... 3I 3MEDICAL RESEAPCH (B)
   GROUP KEY .... 3.5.1
** E JUIPMENT/EXPERIMENT NO. 2 .....CARGIOVASCULAR
**** WASTE SOURCE NO. 14 .... CARCTID BARCFECEPTOR ELECTRICAL ACTIVITY
                           IN PRIMATES
** *** WASTE ITEM NO. 4 .... DATA SHEETS
         STATE ..... SCLID
        DENSITY ..... 72.00 LBS/CU. FT.
         ATTRIBUTES ..... PAPER
         ELEMENTS PRESENT ..
         CCMPOSITION ..... CELLULOSE
                                        QUANTITY (LBS)
         GENERATION DATA ...
                 EXPT. TOTAL
                                         0.50
                                          0.00
                 DAILY RATE
                                          0.00
                 BATCH SIZE
         RECLAMATION ACTION ..
** * * * VASTE ITEM NO. 5 .... NFEDLE
         STATE ..... SOLID
         DENSITY ..... 498.00 LBS/CU. FT.
         ATTRIBUTES ..... STEEL TUBE
         ELEMENTS PRESENT .. FE,C
         CCMPOSITION .....
                                       QUANTITY (LBS)
         GENERATION DATA ...
                 EXPT. TOTAL
                                          0.10
                  DAILY RATE
                                           0.00
                  BATCH SIZE
                                           0.00
         RECLAMATION ACTION .. WASH
**** * WASTE ITEM NJ. 6 ... SYRINGE
         STATE ..... SGLID
         DENSITY ...... 16C.00 LBS/CU. FT.
         ATTRIBUTES ..... GLASS TUBE
         FLEMENTS PRESENT .. SI,02
         COMPOSITION .....
                                        QUANTITY (LBS)
         GENFRATION DATA ...
                  EXPT. TOTAL
                                           3.00
                  DAILY RATE
                                           0.00
                  BATCH SIZE
                                          0.03
```

RECLAMATION ACTION .. WASH

S/C SUBSYSTEM BIOMEDIGAL RESEARCH (B) GROUP KEY 3.5.1 ** EQUIPMENT/EXPERIMENT NO. 2CARDIOVASCULAR **** WASTE SOURCE NO. 14 CAROTID BARORECEPTOR ELECTRICAL ACTIVITY IN PRIMATES ***** WASTE ITEM NO. 7 CAPILLARY TUBES STATE SOLID DENSITY 160.00 LBS/CU. FT. ATTRIBUTES GLASS TUBE ELEMENTS PRESENT .. SI,02 COMPOSITION GENERATION DATA ... QUANTITY (LBS) 0.50 EXPT. TOTAL DAILY RATE 0.00 0.00 BATCH SIZE RECLAMATION ACTION .. N/R ***** WASTE ITEM NO. 8 FILM STATE SOLID DENSITY 83.00 LBS/CU. FT. ATTRIBUTES PLASTIC STRIP ELEMENTS PRESENT .. COMPOSITION ACLAR-SILVER QUANTITY (LBS) GENERATION DATA ... EXPT. TOTAL 1.00 DAILY RATE 0.00 BATCH SIZE 0.01 RECLAMATION ACTION .. N/R **** WASTE ITEM NO. 9 BLOOD STATE LIQUID DENSITY 65.52 LBS/CU. FT. ATTRIBUTES ELEMENTS PRESENT .. COMPOSITION PROTEIN

GENERATION DATA ...

EXPT. TOTAL

DAILY RATE

BATCH SIZE

RECLAMATION ACTION .. N/R

QUANTITY (LBS)

1.00

0.00

```
S/C SUBSYSTEM .... BIOMEDICAL RESEARCH (B)
   3ROUP KEY .... 3.5.1
** EJUIPMENT/EXPERIMENT NO. 2 .....CARDIOVASCULAR
**** WASTE SOURCE NO. 14 .... CALCTID BARORECEPTOR ELECTRICAL ACTIVITY
                          IN PRIMATES
*** WASTE ITEM NO. 10 .... CFNTRIFUGE TUBES
        STATE ..... SOLID
        DENSITY ..... 16(.00 LBS/CU. FT.
        ATTRIBUTES ..... GLASS TUBE
        ELEMENTS PRESENT .. SI,02
        COMPOSITION .....
        GENERATION DATA ...
                                       QUANTITY (LRS)
                 EXPT. TOTAL
                                         0.50
                 DAILY RATE
                                          0.00
                                          0.00
                 BATCH SIZE
        RECLAMATION ACTION .. WASH
***** WASTE ITEM NO. 11 .... GAUZE
        STATE ..... SOLID
        DENSITY ..... 9C.48 LBS/CU. FT.
        ATTRIBUTES ......
        ELEPENTS PRESENT ..
        COMPOSITION ..... CELLULOSE
        GENERATION DATA ...
                                        QUANTITY (LBS)
                 EXPT. TOTAL
                                          0.30
                 DAILY RATE
                                          0.00
                 BATCH SIZE
                                          0.00
        RECLAMATION ACTION .. N/R
**** WASTE ITEM NO. 12 .... LITTER
        STATE ..... SOLID
        DENSITY ..... 43.00 LBS/CU. FT.
        ATTRIBUTES ......
        ELEMENTS PRESENT ...
        COMPOSITION .....
        GENERATION DATA ...
                                        QUANTITY (LBS)
                 EXPT. TOTAL
                                         20.00
                 DAILY RATE
                                         0.08
                 BATCH SIZE
                                          0.08
        RECLAMATION ACTION .. N/R
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S/C SUBSYSTEM .... BIONEDICAL RESEARCH (B)
   GROUP KEY .... 3.5.1
** EQUIPMENT/EXPERIMENT NO. 2 .....CARDIOVASCULAR
**** WASTE SOURCE NO. 14 ... CAROTID BARORECEPTOR ELECTRICAL ACTIVITY
                            IN PRIMATES
***** WASTE ITEM NO. 13 .... 2 MONKEYS
         STATE ..... SOLID
         DENSITY ......
                           0.00 LBS/CU. FT.
         ATTRIBUTES ....
         ELEMENTS PRESENT ..
         COMPOSITION .....
         GENERATION DATA ...
                                       QUANTITY (LBS)
                  EXPT. TOTAL DAILY RATE
                                          4.40
                                           0.00
                                           0.00
                  BATCH SIZE
         RECLAMATION ACTION .. N/R
***** WASTE ITEM NO. 14 .... URINE
         STATE ..... LIQUID
         DENSITY ..... 63.00 LBS/CU. FT.
         ATTRIBUTES .....
         ELEMENTS PRESENT ..
         COMPOSITION ..... WATER
         GENERATION DATA ...
                                        QUANTITY (LBS)
                  EXPT. TOTAL
                                         10.00
                  DAILY RATE
                                          0.04
                  BATCH SIZE
                                           0.04
         RECLAMATION ACTION .. DISTILL
***** WASTE ITEM NO. 15 .... FECES
         STATE ..... SEMI-SOLID
         DENSITY ..... 87.00 LBS/CU. FT.
         ATTRIBUTES ....
         ELEMENTS PRESENT .. C, H, O, N
         COMPOSITION .....
         GENERATION DATA ...
                                        QUANTITY (LBS)
                  EXPT. TOTAL
                                          28.00
                  DAILY RATE
                                           0.10
                  BATCH SIZE
                                           0.10
         RECLAMATION ACTION .. N/R
```

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S/C SUBSYSTEM .... BIOMEDICAL RESEARCH (C)
    GROUP KEY .... 3.5.1
** EQUIPMENT/EXPERIMENT NO. 3 ..... RESPIRATION
         ASSOCIATED FPE NUMBER ... 5.13
         S/C AREAS ..... MEDICAL LABOPATOPY
**** WASTE SOURCE NO. 1 .... PULMONARY VECHANICS
         DOCUMENT NO. ..... 3.5.1.3.1
         REFERENCE NO. I .. REPORT ON THE OPTIMIZATION OF THE MANNED
                            ORBITAL RESEARCH LABORATORY (MCRL) SYST
                            EM CONCEPT, PHASE ITA, VOLUMESXXII, XXIII. C
                            DUGLAS REPORT NOS. SM46083 AND SM46084, S
         REFERENCE NO. 2 .. EXPERIMENT PROGRAM FOR EXTENDED EARTH OR
                            BITAL MISSIONS, REVISION NO. 1, SEPTEMBE
                           R 1, 1969, NASA OMSF.
         PEFERENCE NO. 3 .. IMBLMS
***** WASTE ITEM NO. 1 .... CHEMICALS FOR PCO2 AND PD2
         STATE ..... SOLID
         DENSITY ..... 8C.00 LBS/CU. FT.
         ATTRIBUTES ..... LIQUIDS, GASES
         ELEMENTS PRESENT ..
         COMPOSITION ..... NAHCO3, PO4 - KCL , REFERENCE GASES
         GENERATION DATA ...
                                         QUANTITY (LBS)
                  EXPT. TOTAL .
                                            5.00
                  DAILY RATE
                                            0.00
                  BATCH SIZE
                                            0.08
         RECLAMATION ACTION .. N/R
***** WASTE ITEM NO. 2 .... DATA SHEETS
         STATE ..... SOLID
         DENSITY ..... 72.00 LBS/CU. FT.
         ATTRIBUTES .... PAPER, SHEET
         ELEMENTS PRESENT ...
         CEMPOSITION ..... CELLULOSE
         GENERATION DATA ...
                                         QUANTITY (LBS)
                  EXPT. TOTAL
                                            0.50
                  DAILY RATE
                                            0.00
                  BATCH SIZE
                                            0.00
         RECLAMATION ACTION .. N/R
```

S/C SUBSYSTEM BIOMEDICAL RESEARCH (C) SROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 3RESPIRATION
**** WASTE SOURCE NO. 1 PULMONARY MECHANICS

**** WASTE ITEM NO. 3 SPIROMETER MOUTH-PIECE

STATE SOLID

DENSITY 68.60 LBS/CU. FT.

ATTRIBUTES PLASTIC, TUBE

ELEMENTS PRESENT ..

COMPOSITION COPOLYVINYL CHLORIDE, ACETATE GENERATION DATA ... QUANTITY (LBS)

GENERATION DATA ... QUANTITY
EXPT. TOTAL 12.00

DATLY RATE 0.00
BATCH SIZE 0.20

RECLAMATION ACTION .. WASH, STERILIZE

```
S/C SUBSYSTEM .... BIOMEDICAL RESEARCH (C)
   3ROUP KEY ..... 3.5.1
** FOUIPMENT/EXPERIMENT NO. 3 ....RESPIRATION
*** WASTE SOURCE NO. 2 .... RESPIRATORY CONTROL
         DOCUMENT NO. ..... 3.5.1.3.2
         REMARKS ( 1) ..... FOR OPERATIONAL DESCRIPTION SEE DOCUMENT
                           NO. A- 3.5.1.3.1
**** WASTE ITEM NO. 1 .... BLOOD
         STATE ..... LIGUID
         DENSITY ..... 65.52 LBS/CU. FT.
         ATTRIBUTES .....
         ELEMENTS PRESENT ...
         COMPOSITION ..... PROTEIN
                                        QUANTITY (LBS)
         GENERATION DATA ...
                  EXPT. TOTAL
                                           0.10
                  DAILY RATE
                                           0.00
                                           0.00
                  BATCH SIZE
         RECLAMATION ACTION .. N/R
**** WASTE ITEM NO. 2 ... TEST TUBE
         STATE ..... SOLID
         DENSITY ..... 16C.00 LBS/CU. FT.
         ATTRIBUTES ..... GLASS, TUBE
         ELEMENTS PRESENT ...
         COMPOSITION ..... SI 02
                                        QUANTITY (LBS)
         GENERATION DATA ...
                  EXPT. TOTAL
                                           3.00
                  DAILY RATE
                                           0.00
                  BATCH SIZE
                                           0.06
         RECLAMATION ACTION .. WASH
***** WASTE ITEM NO. 3 .... INSTRUMENT
         STATE ..... SOLID
         DENSITY ...... 200.00 LBS/CU. FT.
         ATTRIBUTES ..... VARIED
         ELEMENTS PRESENT ..
         COMPOSITION ..... VARIED
                                         QUANTITY (LBS)
         GENERATION DATA ...
```

5.00

0.10

EXPT. TOTAL

DAILY RATE BATCH SIZE

RECLAMATION ACTION .. REPAIR

S/C SUBSYSTEM BIOMEDICAL RESEARCH (C) GROUP KEY 3.5.1 ** EQUIPMENT/EXPERIMENT NO. 3RESPIRATION **** WASTE SOURCE NO. 3 BLCOD AND VENTILITORY GAS EXCHANGE DOCUMENT NO. 3.5.1.3.3 REMARKS (1) FOR OPERATIONAL DESCRIPTION SEE COCUMENT NO. A- 3.5.1.3.1 ***** WASTE ITEM NO. 1 ... SPIROMETER MOUTHPIECE STATE SOLID DENSITY 68.60 LBS/CU. FT. ATTRIBUTES PLASTIC, TUBE ELEMENTS PRESENT .. COMPOSITION COPOLYVINYL CHLORIDE, ACETATE QUANTITY (LBS) GENERATION DATA ... EXPT. TOTAL 1.50 DAILY RATE 0.00 BATCH SIZE 0.01 RECLAMATION ACTION .. WASH ***** WASTE ITEM NO. 2 CHEMICALS FOR BLOOD GASES EXPIRED GASES STATE SOLID DENSITY C.OO LBS/CU. FT. ATTRIBUTES LIQUID, GASES ELEMENTS PRESENT .. COMPOSITION REFERENCE GASES NAHCO3-PO4-KCL NA2S2O4 N AOH-K3FE(CN)3 ETC. GENERATION DATA ... QUANTITY (LBS) EXPT. TOTAL 0.00 DAILY RATE 0.00 0.00 BATCH SIZE RECLAMATION ACTION .. ***** WASTE ITEM NO. 3 DATA SHEETS STATE SOLID DENSITY 72.00 LBS/CU. FT. ATTRIBUTES PAPER, SHEETS ELEMENTS PRESENT .. COMPOSITION CELLULOSE QUANTITY (LBS) GENERATION DATA ... 0.20 EXPT. TOTAL DAILY RATE 0.00 BATCH SIZE 0.00

S/C SUBSYSTEM BIOMEDICAL RESEARCH (C) 3ROUP KEY 3.5.1 ** EQUIPMENT/EXPERIMENT NO. 3RESPIRATION **** WASTE SOURCE NO. 3 ... BLOOD AND VENTILITORY GAS EXCHANGE ***** WASTE ITEM NO. 4 NEEDLE STATE SCLID DENSITY 488.00 LBS/CU. FT. ATTRIBUTES STEEL ELFMENTS PRESENT .. CCMPOSITION FEC GENERATION DATA ... QUANTITY (LBS) EXPT. TOTAL 0.10 DAILY RATE 0.00 BATCH SIZE 0.00 RECLAMATION ACTION ... ***** WASTE ITEM NO. 5 SYRINGE STATE SOLID DENSITY 16G.00 LBS/CU. FT. ATTRIBUTES GLASS TUBE ELEMENTS PRESENT .. COMPOSITION SIC2 GENERATION DATA ... QUANTITY (LBS) EXPT. TOTAL DAILY RATE 4.00 0.00 BATCH SIZE 0.04 RECLAMATION ACTION .. WASH **** WASTE ITEM NO. 6 GAUZE STATE SOLID DENSITY 90.48 LBS/CU. FT. ATTRIBUTES CLOTHE

RECLAMATION ACTION .. N/R

ELEMENTS PRESENT ..

GENERATION DATA ...

COMPOSITION CELLULOSE

EXPT. TOTAL

DAILY RATE

BATCH SIZE

QUANTITY (LBS)

0.30

0.00

0.00

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S/C SUBSYSTEM .... BIOMEDICAL RESEARCH (C)
   ROUP KEY .... 3.5.1
** EQUIPMENT/EXPERIMENT NO. 3 .....RESPIRATION
**** WASTE SOURCE NO. 3 ... BLOOD AND VENTILITORY GAS EXCHANGE
***** WASTE ITEM NO. 7 .... BLOOD
         STATE ..... LIQUID
         DENSITY ..... 65.52 LBS/CU. FT.
        ATTRIBUTES .....
         ELEMENTS PRESENT ..
         COMPOSITION ..... PROTEIN
                                        QUANTITY (LBS)
         GENERATION DATA ...
                 EXPT. TOTAL
                                         - 0.10
                 DAILY RATE
                                          0.00
                 BATCH SIZE
                                          0.00
         RECLAMATION ACTION .. N/R
**** WASTE ITEM NO. 8 ... TEST TUBE
         STATE ..... SOLID
         DENSITY ..... 16C.00 LBS/CU. FT.
         ATTRIBUTES ..... GLASS, TUBE
         ELEMENTS PRESENT ..
         COMPOSITION ..... STO2
         GENERATION DATA ...
                                        QUANTITY (LBS)
                 EXPT. TOTAL
                                          3.00
                 DAILY RATE
                                          0.00
                 BATCH SIZE
                                          0.03
         RECLAMATION ACTION .. KASH
**** WASTE ITEN NO. 9 .... INSTRUMENT
         STATE ..... SOLID
         DENSITY ..... 200.00 LBS/CU. FT.
         ATTRIBUTES .... VARIED
         ELEMENTS PRESENT ..
         COMPOSITION ..... VARIED
         GENERATION DATA ...
                                        QUANTITY (LBS)
                 EXPT. TOTAL
                                          5.00
                 DAILY RATE
                                          0.00
                                          0.05
                  BATCH SIZE
         RECLAMATION ACTION .. REPAIR
```

S/C SUBSYSTEM BIOMEDICAL RESEARCH (C) 3ROUP KEY 3.5.1

**** WASTE SOURCE NO. 4 LUNG CLEANING IN RATS

DOCUMENT NO. 3.5.1.3.4

REFERENCE NO. 1 .. REPORT ON THE OPTIMIZATION OF THE MANNED ORBITAL RESEARCH LABORATORY (MORL) SYSTEM CONCEPT, PHASE IIA, VOLUMES XXII, XXIII.D OUGLAS REPORT NOS. SM46083 AND SM46084 SE

REFFRENCE NO. 2 .. EXPERIMENT PROGRAM FOR EXTENDED EARTH OR BITAL MISSIONS, REVISION NO. 1, SEPTEMBE R 1, 1969, NASA OMSF.

**** WASTE ITEM NO. 1 ... 6 RATS, ALBINO

STATE SOLID

DENSITY C.OO LBS/CU. FT.

ATTRIBUTES CARCASS

ELEMENTS PRESENT ..

COMPOSITION PROTEINS, MINERAL

GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 4.00

DAILY RATE 0.00
BATCH SIZE 0.00

RECLAMATION ACTION .. N/R

**** WASTE ITEM NO. 2 ... TISSUE FIXATIVES

STATE LIQUID

DENSITY 112.00 LBS/CU. FT.

ATTRIBUTES CHEMICAL

ELEMENTS PRESENT ..

COMPOSITION WAXES

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 1.00
DAILY RATE 0.07
BATCH SIZE 0.07

```
S/C SUBSYSTEM .... BIOMEDICAL RESEARCH (C)
   GROUP KEY .... 3.5.1
** EQUIPMENT/EXPERIMENT NO. 3 .....RESPIRATION
**** WASTE SOURCE NO. 4 .... LUNG CLEANING IN RATS
* + * * WASTE ITEM NO. 3 .... STAINS
        STATE ..... LIQUID
        DENSITY ..... 64.00 LBS/CU. FT.
         ATTRIBUTES .... DYES
         ELEMENTS PRESENT ..
         COMPOSITION ..... C16H14O6, 3H2O, C2OH8BR4O5
         GENERATION DATA ...
                                        QUANTITY (LBS)
                 EXPT. TOTAL DAILY RATE
                                           0.50
                                           0.04
                  BATCH SIZE
                                           0.04
        RECLAMATION ACTION .. COLLECT
**** WASTE ITEM NO. 4 .... FOOD PARTICLES
         STATE ..... SOLID
         DENSITY ..... 95.00 LBS/CU. FT.
         ATTRIBUTES ..... AEROSOL
         ELEMENTS PRESENT .. C. H.O.N
         COMPOSITION .....
                                        QUANTITY (LBS)
         GENERATION DATA ...
                  EXPT. TOTAL
                                           0.15
                  DAILY RATE
                                           0.01
                  BATCH SIZE
                                           0.01
         RECLAMATION ACTION .. N/R
**** WASTE ITEM NO. 5 .... WASTE WATER
         STATE ..... LIQUID
         DENSITY ..... 62.40 LBS/CU. FT.
         ATTRIBUTES .....
         ELEMENTS PRESENT ..
         COMPOSITION ..... WATER
         GENERATION DATA ...
                                        QUANTITY [LBS]
                  EXPT. TOTAL
                                           0.50
                  DAILY RATE
                                           0.04
                  BATCH SIZE
                                           0.04
         RECLAMATION ACTION ..
```

S/C SUBSYSTEM BIOMEDICAL RESEARCH (C) GROUP KEY 3.5.1 ** EQUIPMENT/EXPERIMENT NO. 3RESPIRATION **** WASTE SOURCE NO. 4 ... LUNG CLEANING IN RATS **** WASTE ITEM NO. 6 URINE STATE LIQUID DENSITY 63.00 LBS/CU. FT. ATTRIBUTES ELEMENTS PRESENT .. COMPOSITION WATER GENERATION DATA ... - QUANTITY (LBS) EXPT. TOTAL 0.01 DAILY RATE 0.01 BATCH SIZE 0.01 RECLAMATION ACTION .. DISTILL **** WASTE ITEM NO. 7 FFCES STATE SEMI-SOLID DENSITY 87.00 LBS/CU. FT. ATTRIBUTES FLEMENTS PRESENT .. C.H.D.N COMPOSITION GENERATION DATA ... QUANTITY (LBS) EXPT. TOTAL 0.03 DAILY RATE 0.00 BATCH SIZE 0.00 RECLAMATION ACTION .. N/R ***** WASTE ITEM NO. 8 ... COLOR FILM STATE SOLID DENSITY 83.00 LBS/CU. FT. ATTRIBUTES PLASTIC, STRIP ELEMENTS PRESENT .. COMPOSITION ACLAR, AGL GENERATION DATA ... QUANTITY (LBS) EXPT. TOTAL 0.10 DAILY RATE 0.01 BATCH SIZE 0.01 RECLAMATION ACTION .. N/R

```
S/C SUBSYSTEM .... BIOMEDICAL RESEARCH (C)
   GROUP KEY .... 3.5.1
** EQUIPMENT/EXPERIMENT NO. 3 .....RESPIRATION
**** WASTE SOURCE NO. 4 .... LUNG CLEANING IN RATS
***** WASTE ITEM NO. 9 .... DATA SHEETS
         STATE ..... SOLID
         DENSITY .....
                          72.00 LBS/CU. FT.
         ATTRIBUTES ..... SHEETS
         ELEMENTS PRESENT ...
         COMPOSITION ..... CELLULOSE
                                        QUANTITY (LBS)
         GENERATION DATA ...
                 EXPT. TOTAL
                                           0.10
                 DAILY RATE
                                           0.01
                 BATCH SIZE
                                           0.01
         RECLAMATION ACTION .. N/R
***** WASTE ITEM NO. 10. .... GLASS SLIDES
         STATE ..... SOLID
         DENSITY ..... 160.00 LBS/CU. FT.
         ATTRIBUTES .... FLAT
         ELEMENTS PRESENT ...
         COMPOSITION ..... SIO2
         GENERATION DATA ...
                                        QUANTITY (LBS)
                  EXPT. TOTAL
                                           0~20
                  DAILY RATE
                                           0.01
                  BATCH SIZE
                                           0.01
         RECLAMATION ACTION .. WASH
***** WASTE ITEM NO. 11 .... LITTER
         STATE ..... SOLID
         DENSITY ..... 43.00 LBS/CU. FT.
         ATTRIBUTES .....
         ELEMENTS PRESENT ..
         COMPOSITION .....
                                        QUANTITY (LBS)
         GENERATION DATA ...
                  EXPT. TOTAL
                                           3,50
                  DAILY RATE
                                           0.23
                                           0.23
                  BATCH SIZE
```

```
S/C SUBSYSTEM .... BIOMEDICAL RESEARCH (C)
    GROUP KEY .... 3.5.1
** EQUIPMENT/EXPERIMENT NO. 3 .....RESPIRATION
*****************
**** WASTE SOURCE NO. 5 .... INDUCED PULMONARY INFECTION IN MICE
         DOCUMENT NO. ..... 3.5.1.3.5
         REMARKS ( 1) ..... FOR OPERATIONAL DESCRIPTION SEE COCUMENT
                            NO. A- 3.5.1.3.4
**** WASTE ITEM NO. 1 .... 6 MICE, ALBINO
         STATE ..... SOLID
         DENSITY ..... C.OO LBS/CU. FT.
         ATTRIBUTES ..... CARCASS
         ELEMENTS PRESENT ..
         COMPOSITION ..... PROTEINS, MINERAL
                                         QUANTITY (LBS)
         GENERATION DATA ...
                  EXPT. TOTAL
                                            0.30
                  DAILY RATE
                                            0.00
                                            0.00
                  BATCH SIZE
         RECLAMATION ACTION .. N/R
**** WASTE ITEM NO. 2 .... TISSUE FIXATIVES
         STATE ..... LIQUID
         DENSITY ..... 112.00 LBS/CU. FT.
         ATTRIBUTES ..... CHEMICALS
         ELEMENTS PRESENT ..
         COMPOSITION ..... WAXES
                                         QUANTITY (LBS)
         GENERATION DATA ...
                                            0.10
                  EXPT. TOTAL
                  DAILY RATE
                                            0.01
                  BATCH SIZE
                                            0.01
         RECLAMATION ACTION ..
*** ** WASTE ITEM NO. 3 .... STAINS
         STATE ..... LIQUID
         DENSITY ..... 64.00 LBS/CU. FT.
         ATTRIBUTES .... DYES
         ELEMENTS PRESENT ..
         COMPOSITION ..... C16H14D6, 3H2O, C2OH8BR4O5
                                          QUANTITY (LBS)
         GENERATION DATA ...
                   EXPT. TOTAL
                                            0.05
                   DAILY RATE
                                            0.00
                                            0.00
                   BATCH SIZE
         RECLAMATION ACTION .. COLLECT
```

S/C SUBSYSTEM Blomedical Research (C) GROUP KEY 3.5.1 ** EQUIPMENT/EXPERIMENT NO. 3RESPIRATION **** WASTE SOURCE NO. 5 INDUCED PULMONARY INFECTION IN MICE ***** WASTE ITEM NO. 4 FOOD PARTICLES STATE SOLID DENSITY 95.00 LBS/CU. FT. ATTRIBUTES AEROSOL ELEMENTS PRESENT .. C,H,O,N COMPOSITION QUANTITY (LBS) GENERATION DATA ... EXPT. TOTAL 0.01 0.00 DAILY RATE 0.00 BATCH SIZE RECLAMATION ACTION .. N/R ***** WASTE ITEM NO. 5 WASTE WATER STATE LIQUID DENSITY 62.40 LBS/CU. FT. ATTPIBUTES ELEMENTS PRESENT .. COMPOSITION WATER QUANTITY (LBS) GENERATION DATA ... EXPT. TOTAL 0.05 DAILY RATE 0.00 BATCH SIZE 0.00 RECLAMATION ACTION ... **** WASTE ITEM NO. 6 URINE STATE LIQUID DENSITY 63.00 LBS/CU. FT. ATTRIBUTES ELEMENTS PRESENT ... COMPOSITION WATER GENERATION DATA ... QUANTITY (LBS) EXP1. TOTAL 0.00 DAILY RATE 0.00 BATCH SIZE 0.00 RECLAMATION ACTION .. DISTILL

```
S/C SUBSYSTEM .... BIOMEDICAL RESEARCH (C) SROUP KFY .... 3.5.1
```

** EQUIPMENT/EXPERIMENT NO. 3RESPIRATION

*** WASTE SOURCE NO. 5 INDUCED PULMONARY INFECTION IN MICE

**** ***********************

**** WASTE ITEM NO. 7 FECES

STATE SEMI-SOLID

DENSITY 87.00 LBS/CU. FT.

ATTRIBUTES

ELEMENTS PRESENT .. C.b.C.N

COMPOSITION

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.03
DAILY RATE 0.00
BATCH SIZE 0.00

RECLAMATION ACTION .. N/P

**** WASTE ITEM NO. 8 COLOR FILM

STATE SOLID

DENSITY 83.00 LBS/CU. FT.

ATTPIBUTES PLASTIC, STRIP

ELEMENTS PRESENT ..

COMPOSITION ACLAR, AGI

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.10
DAILY RATE 0.01
BATCH SIZE 0.01

RECLAMATION ACTION .. N/R

**** WASTE ITEM NO. 9 DATA SHEETS

STATE SOLID

DENSITY 72.00 LBS/CU. FT.

ATTRIBUTES SHEETS

ELEMENTS PRESENT ..

COMPOSITION CELLULOSE

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.10
DAILY RATE 0.01
BATCH SIZE 0.01

0.21

S/C SUBSYSTEM BIOMEDICAL RESEARCH (C) 3ROUP KEY 3.5.1 ** EQUIPMENT/EXPERIMENT NO. 3RESPIRATION **±* WASTE SOURCE NO. 5 INDUCED PULMONARY INFECTION IN MICE **** WASTE ITEM NO. 10 GLASS SLIDES STATE SOLID DENSITY 160.00 LBS/CU. FT. ATTRIBUTES FLAT ELEMENTS PRESENT .. COMPOSITION SIG2 QUANTITY (LBS) GENERATION DATA ... EXPT. TOTAL DAILY RATE 0.20 0.01 0.01 BATCH SIZE RECLAMATION ACTION .. WASH ***** WASTE ITEM NO. 11 LITTER STATE SOLID DENSITY 43.00 LBS/CU. FT. ATTRIBUTES ELEMENTS PRESENT .. COMPOSITION GENERATION DATA ... QUANTITY (LBS) 3.50 EXPT. TOTAL DAILY RATE 0.23 BATCH SIZE 0.23 RECLAMATION ACTION .. N/R ***** WASTE ITEM NO. 12 BACTERIOLOGY STATE SEMI-SOLID DENSITY 65.00 LBS/CU. FT. ATTRIBUTES ELEMENTS PRESENT .. COMPOSITION AGAR GENERATION DATA ... QUANTITY (LBS) EXPT. TOTAL 3.00 DAILY RATE 0.21

11/30/70

BATCH SIZE

S/C SUBSYSTEM BIOMEDICAL RESEARCH (C) SROUP KEY 3.5.1

**** WASTE ITEM NO. 13 PETRI PLATES

STATE SOLID

DENSITY 68.60 LBS/CU. FT.

ATTRIBUTES PLASTIC

FLEMENTS PRESENT ..

COMPOSITION COPOLYVINYL, ACETATE CL.

GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.50
DAILY RATE 0.03

BATCH SIZE 0.03

RECLAMATION ACTION .. N/R

**** WASTE ITEM NO. 14 LOGPS

STATE SOLID

DENSITY 16C.OO LBS/CU. FT.

ATTRIBUTES ROD

ELEMENTS PRESENT ..

COMPOSITION SIO2

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 1.00
DAILY RATE 0.07
BATCH SIZE 0.07

RECLAMATION ACTION .. WASH STERILIZE

11/33/70 S/C SUBSYSTEM BIOMEDICAL RESEARCH (C) GROUP KEY 3.5.1 ** EQUIPMENT/EXPERIMENT NO. 3RESPIRATION **************************** *** WASTE SOURCE NO. 6 ... RECOVERY RATE FROM NON-INFECTIOUS TRAUMA IN RATS DOCUMENT NO. 3.5.1.3.6 REMARKS (1) FOR OPERATIONAL DESCRIPTION SEE DOCUMENT NO. A- 3 5.1.3.4 **** WASTE ITEM NO. 1 6 RATS, ALBIND STATE SOLID DENSITY 0.00 LBS/CU. FT. ATTRIBUTES CARCASS ELEMENTS PRESENT .. COMPOSITION PROTEINS, MINERAL GENERATION DATA ... QUANTITY (LBS) EXPT. TOTAL 4.00 DAILY RATE 0.00 BATCH SIZE 0.00 RECLAMATION ACTION .. N/R **** WASTE ITEM NO. 2 TISSUE FIXATIVES STATE LIQUID DENSITY 112.00 LBS/CU. FT. ATTRIBUTES CHEMICAL ELEMENTS PRESENT .. COMPOSITION WAXES GENERATION DATA ... QUANTITY (LBS) EXPT. TOTAL 1.00 DAILY RATE 0.07 BATCH SIZE 0.07 RECLAMATION ACTION ... **** ** WASTE ITEM NO. 3 STAINS STATE LICUID DENSITY 64.00 LBS/CU. FT. ATTRIBUTES DYES

ELEMENTS PRESENT ... COMPOSITION C16H14O6, 3H2O, C2OH8BR4C5 QUANTITY (LBS) GENERATION DATA ... EXPT. TOTAL 0.50 DAILY RATE 0.04 BATCH SIZE 0.04 RECLAMATION ACTION .. COLLECT

```
S/C SUBSYSTEM .... BIOMEDICAL RESEARCH (C)
   GROUP KEY .... 3.5.1
** EQUIPMENT/EXPERIMENT NO. 3 .....RESPIRATION
***3' WASTE SOURCE NO. 6 .... RECOVERY RATE FROM NON-INFECTIOUS TRAUMA
                           IN RATS
***** WASTE ITEM NO. 4 ... FOOD PARTICLES
        STATE ..... SOLID
        DENSITY ..... 95.00 LBS/CU. FT.
        ATTRIBUTES ..... AEROSOL
        ELEMENTS PRESENT .. C.H.C.N
        COMPOSITION .....
        GENERATION DATA ...
                                      QUANTITY (LBS)
                 EXPT. TOTAL
                                         0.15
                 DAILY RATE
                                          0.01
                 BATCH SIZE
                                          0.01
        RECLAMATION ACTION .. N/R
**** WASTE ITEM NO. 5 ... WASTE WATER
        STATE ..... LIQUID
        DENSITY ..... 62.40 LBS/CU. FT.
        ATTRIBUTES ......
        FLEMENTS PRESENT ..
        COMPOSITION ..... KATER
        GENERATION DATA ...
                                       QUANTITY (LBS)
                 EXPT. TOTAL
                                         0.50
                 DAILY RATE
                                          0.04
                 BATCH SIZE
                                         0.04
        RECLAMATION ACTION ..
**** WASTE ITEM NO. 6 .... URINE
        STATE ..... LIQUID
        DENSITY ..... 63.00 LBS/CU. FT.
        ATTRIBUTES ......
        ELEMENTS PRESENT ...
        COMPOSITION ..... WATER
        GENERATION DATA ...
                                       QUANTITY (LBS)
                 EXPT. TOTAL
                                          0.01
                 DAILY RATE
                                          0.01
                 BATCH SIZE
```

RECLAMATION ACTION .. DISTILL

0.01

```
S/C SUBSYSTEM .... BIOMEDICAL RESEARCH (C)
   3ROUP KEY .... 3.5.1
** EQUIPMENT/EXPERIMENT NO. 3 ......RESPIRATION
*** NASTE SOURCE NO. 6 .... RECOVERY RATE FROM NON-INFECTIOUS TRAUMA
                           IN RATS
*** ** WASTE ITEM NO. 7 .... FECES
         STATE ..... SEMI-SOLID
         DENSITY ..... 87.00 LBS/CU. FT.
         ATTRIBUTES ......
         ELEMENTS PRESENT .. C.H.O.N
         COMPOSITION .....
         GENERATION DATA ...
                                       QUANTITY (LBS)
                 EXPT. TOTAL
                                          0.03
                 DAILY RATE
                                          0.00
                  BATCH SIZE
                                          0.00
         RECLAMATION ACTION .. N/R
**** MASTE ITEM NO. 8 .... COLOR FILM
         STATE ..... SOLID
         DENSITY ...... 83.00 LBS/CU. FT.
         ATTRIBUTES ..... PLASTIC, STRIP
         ELEMENTS PRESENT ..
         CCMPOSITION ..... ACLAR, AGI
         GENERATION DATA ...
                                        QUANTITY (LBS)
                 EXP1. TOTAL
                                          0.10
                  DAILY RATE
                                          0.01
                  BATCH SIZE
                                          0.01
         RECLAMATION ACTION .. N/R
**** WASTE ITEM NO. 9 .... DATA SHEETS
         STATE ..... SOLID
         DENSITY ..... 72.00 LBS/CU. FT.
         ATTRIBUTES .... SHEETS
         ELEMENTS PRESENT ..
         CCMPOSITION ..... CELLULOSE
         GENERATION DATA ...
                                        QUANTITY (LBS)
                  EXPT. TOTAL
                                          0.10
                  DAILY RATE
                                          0.01
                  BATCH SIZE
                                         0.01
         RECLAMATION ACTION .. N/R
```

```
S/C SUBSYSTEM .... BIOMEDICAL RESEARCH (C)
   GROUP KEY .... 3.5.1
** FQUIPMENT/EXPERIMENT NO. 3 .....RESPIRATION
**** WASTE SOURCE NO. 6 .... RECOVERY RATE FROM NON-INFECTIGUS TRAUMA
                           IN RATS
***** WASTE ITEM NO. 10 ... GLASS SLIDES
        STATE ..... SOLID
        DENSITY ..... 16C.00 LBS/CU. FT.
        ATTRIBUTES .... FLAT
        ELEMENTS PRESENT ..
        COMPOSITION ..... SIC2
        GENERATION DATA ...
                                       QUANTITY (LBS)
                 EXPT. TOTAL
                                          0.20
                 DAILY RATE
                                          0.01
                                          0.01
                 BATCH SIZE
        RECLAMATION ACTION .. WASH
**** ** WASTE ITEM NO.-11 ... LITTER
         STATE ..... SOLID
        DENSITY ..... 43.00 LBS/CU. FT.
        ATTRIBUTES .....
        ELEPENTS PRESENT ..
        COMPOSITION .....
                                       QUANTITY (LBS)
        GENERATIEN DATA ...
                 EXPT. TOTAL
                                          3.50
                 DAILY RATE
                                          0.23
                 BATCH SIZE
                                          0.23
        RECLAMATION ACTION .. N/R
```

S/C SUBSYSTEM BIOMEDICAL RESEARCH (D)
GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 4 GASTROINTESTINAL

ASSOCIATED FPE NUMBER ... 5.13
S/C AREAS MEDICAL LABORATORY

*** WASTE SOURCE NO. 1 G.I. MOTILITY AND PH

DOCUMENT NO. 3.5.1.4.1

REFERENCE NO. 1 .. NASA EXPERIMENT DESCRIPTIONS FOR EXTENDE D APOLLO EARTH-ORBIT FLIGHTS, NASA HEADOU ARTERS, WASHINGTON, D.C., MARCH 1965.

REFERENCE NO. 2 .. EXPERIMENT PROGRAM FOR EXTENDED EARTH OR BITAL MISSIONS, REVISION NO.1, SEPTEMBER 1,1969, NASA CMSF.

****** WASTE ITEM NO. 1 RUBBER BALLOON

STATE SOLID

DENSITY 57.00 LBS/CU. FT.

ATTRIBUTES SHEET ELEMENTS PRESENT .. (C5H8)X

COMPOSITION

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 10.00
DAILY RATE 0.00
BATCH SIZE 0.10

RECLAMATION ACTION .. N/R

**** WASTE ITEM NO. 2 STOMACH TUBES

STATE SOLID

DENSITY 57.00 LBS/CU. FT.

ATTRIBUTES TUBE ELEMENTS PRESENT .. (C5H8)X

COMPOSITION

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 10.00
DAILY RATE 0.00
BATCH SIZE 0.10

S/C SUBSYSTEM BIOMEDICAL RESEARCH (D) SROUP KEY 3.5.1

**** WASTE SOURCE NO. 2 INTESTINAL ABSORPTION

DOCUMENT NO. 3.5.1.4.2

REFERENCE NO. 1 .. EXPERIMENT PROGRAM FOR EXTENDED FARTH PR BITAL MISSIONS, REVISION NO.1, SEPTEMBER 1 ,1969, NASA OMSE.

***** WASTE ITEM NO. 1 ... RADIOACTIVE FOOD PARTICLES

STATE SOLID

DENSITY 6C. 00 LBS/CU. FT.

ATTRIBUTES

ELEMENTS PRESENT ..

COMPOSITION CHCN

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 26.00 94TLY RATE 0.00 BATCH SIZE 0.26

RECLAMATION ACTION .. N/R

***** WASTE JTEM NO. 2 ... R/A URINE

STATE LIQUID

DENSITY 62.40 LBS/CU. FT.

ATTRIBUTES

ELEFENTS PRESENT ..

COMPOSITION WATER

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 600.00
DAILY RATE 0.00
BATCH SIZE 6.00

RECLAMATION ACTION .. N/R

**** WASTE ITEM NO. 3 ... R/A FECES

STATE SEMI-SOLID

DENSITY 83.00 LBS/CU. FT.

ATTRIBUTES

ELFMENTS PRESENT ..

COMPUSITION CHCN+

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 150.00
DAILY RATE 0.00
BATCH SIZE 1.50

S/C SUBSYSTEM BIOMEDICAL RESEARCH (D) 3ROUP KEY 3.5.1 ** FQUIPMENT/EXPERIMENT NO. 4GASTROINTESTINAL **** WASTE SOURCE NO. 2 INTESTINAL ABSORPTION **** WASTE ITEM NO. 4 FOOD PARTICLES STATE SOLID DENSITY 6C.OO LBS/CU. FT. ATTRIBUTES AEROSOL ELEMENTS PRESENT ... COMPOSITION CHON GENERATION DATA ... QUANTITY (LBS) EXPT. TOTAL 52.00 DAILY RATE 0.00 BATCH SIZE 0.26 RECLAMATION ACTION .. N/R ***** WASTE ITEM NO. 5 URINE STATE LIQUID CENSITY 62.40 LBS/CU. FT. ASTRIBUTES ELEMENTS PRESENT .. COMPOSITION WATER GENERATION DATA ... QUANTITY (LBS) EXPT. TOTAL 800.00 DAILY RATE 0.00 BATCH SIZE 4.00 RECLAMATION ACTION .. DISTILL IF DESIRED **** WASTE ITEM NO. 6 FECES STATE SEMI-SOLID DENSITY 83.00 LBS/CU. FT. ATTRIBUTES ELEMENTS PRESENT .. COMPOSITION CHON+ GENERATION DATA ... QUANTITY (LBS) EXPT. TOTAL 200.00 DAILY RATE 0.00 BATCH SIZE 1.00

S/C SUBSYSTEM BIOMEDICAL RESEARCH (D) GROUP KEY 3.5.1

**** WASTE SOURCE NO. 3 INDICES OF RENAL FUNCTION

DUCUMENT NO. 3.5.1.4.3

REFERENCE NO. 1 .. NASA EXPERIMENT DESCRIPTIONS FOR EXTENDE D EARTH-DRBIT FLIGHTS, NASA HEADQUARTERS, WASHINGTON, D.C., MARCH 1965

REFERENCE NO. 2 .. REPT.ON THE OPTIMIZATION OF MANNED ORBIT AL RESEARCH LAB. (MORL) SYSTEM CONCEPT, PHA SE IIA, VOL.XXII & XXIII, EXPERIMENT PROG. DOUGLAS REPT. NOS. SM46083 & SM46084, SEPT.

REFERENCE NO. 3 .. EXPERIMENT PROGRAM FOR EXTENDED FARTH OR BITAL MISSIONS, REVISION NO.1, SEPTEMPER 1,1964

**** WASTE ITEM NO. 1 CHEMICALS FOR CREATININE ANALYSIS

STATE LIQUID, SOLID

DENSITY 70.00 LBS/CU. FT.

ATTRIBUTES

ELEMENTS PRESENT .. NAG2

COMPOSITION PICRATE

GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 1.00

DAILY RATE 0.00 BATCH SIZE 0.02

RECLAMATION ACTION .. N/R

**** WASTE ITEM NO. 2 ... CHEMICALLY IMPREGNATED PAPER

STATE SOLID

DENSITY 70.00 LBS/CU. FT.

ATTRIBUTES STRIPS

ELEMENTS PRESENT .. VARIED

COMPOSITION

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.25
DAILY RATE 0.00
BATCH SIZE 0.00

.1/33/70

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3/C SUBSYSTEM .... BIOMEDICAL RESEARCH (D) 3ROUP KEY .... 3.5.1
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፡ኍ EQUIPMENT/EXPERIMENT NO. 4GASTROINTESTINAL
፡*** WASTE SOURCE NO. 3 INDICES OF RENAL FUNCTION
፡**** #**********************

***** WASTE ITEM NO. 3 BLCOD STATE LIQUID

DENSITY 65.52 LBS/CU. FT.

ATTRIBUTES ELEMENTS PRESENT ...

COMPOSITION CHON+

GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.50
DAILY RATE 0.00
BATCH SIZE 0.01

RECLAMATION ACTION .. N/R

T**** WASTE ITEM NO. 4 URINE

STATE LIQUID DENSITY 63.60 LBS/CU. FT.

ATIRIBUTES
ELEMENTS PRESENT ..

COMPOSITION WATER

GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 7.00

DAILY RATE 0.00 BATCH SIZE 1.40

RECLAMATION ACTION .. A/R

***** WASTE ITEM NO. 5 SYRINGE

STATE SOLID

DENSITY 160.00 LBS/CU. FT.

ATTRIBUTES GLASS TUBE

ELEMENTS PRESENT .. SIC2

COMPOSITION

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 4.00
DAILY RATE 0.00
BATCH SIZE 0.08

RECLAMATION ACTION .. WASH, STERILIZE

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S/C SUBSYSTEM .... BIOMEDICAL RESEARCH (D) 
GROUP KEY .... 3.5.1
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***** WASTE ITEM NO. 6 NEEDLES STATE SOLID

DENSITY 488.00 LBS/CU. FT.

ATTRIBUTES STEEL TUBE

ELEMENTS PRESENT .. FEC

COMPOSITION

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 1.00 DAILY RATE 0.00 BATCH SIZE 0.02

RECLAMATION ACTION .. WASH STERILIZE

S/C SUBSYSTEM BIOMEDICAL RESEARCH (D) GROUP KEY 3.5.1

** EJUIPMENT/EXPERIMENT NO. 4GASTROINTESTINAL

**** WASTE SOURCE NO. 4 RENAL CALCULUS FORMATION IN RATS

DOCUMENT NO. 3.5.1.4.4

REFERENCE NO. 1 .. EXPERIMENT PROGRAM FOR EXTENDED EARTH OR BITAL MISSIONS, REVISION NO. 1, SEPTEMBER 1 ,1969,NASA OMSF.

**** WASTE ITEM NO. 1 6 RATS, ALBINO

STATE SOLID

DENSITY 0.00 LBS/CU. FT.

ATTRIBUTES

ELEMENTS PRESENT ...

COMPOSITION

QUANTITY (LBS) GENERATION DATA ...

> EXPT. TOTAL 1.00 DAILY RATE 0.00 BATCH SIZE 0.00

RECLAMATION ACTION ... N/R

***** WASTE ITEM NO. 2 TISSUE FIXATIVES STATE LIQUID

DENSITY 112.00 LBS/CU. FT.

ATTRIBUTES CHEMICAL

ELEMENTS PRESENT .. K2CR2O7.HGCL2

COMPOSITION

GENERATION DATA ... QUANTITY (LBS)

> EXPT. TOTAL 1.00 DAILY RATE 0.04 BATCH SIZE 0.04

RECLAMATION ACTION ..

SNIATE SOOS E ON MATE ATTACK *****

STATE LIQUID

DENSITY 64.00 LBS/CU. FT.

ATTRIBUTES DYES

ELEMENTS PRESENT .. C16H14O6, 3H2O, C2OH8BR4O5

COMPOSITION

GENERATION DATA ... QUANTITY (LBS)

> EXPT. TOTAL 0.50 DAILY RATE 0.02 BATCH SIZE 0.02

RECLAMATION ACTION .. COLLECT

```
S/C SUBSYSTEM .... BIQMEDICAL RESEARCH (D)
```

3ROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 4GASTROINTESTINAL
**** WASTE SOURCE NO. 4 RENAL CALCULUS FORMATION IN RATS

**** WASTE ITEM NO. 4 ... FOOD PARTICLES

STATE SOLID

DENSITY 95.00 LBS/CU. FT.

ATTRIBUTES AEROSOL

ELEMENTS PRESENT ...

CCMPOSITION CHGN

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.15
DAILY RATE 0.00
BATCH SIZE 0.00

RECLAMATION ACTION .. N/R

**** WASTE ITEM NO. 5 WASTE WATER

STATE LICUID

DENSITY 62.40 LBS/CU. FT.

ATTRIBUTES

ELEMENTS PRESENT ..

COMPOSITION WATER

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.50
DAILY RATE 0.02
BATCH SIZE 0.02

RECLAMATION ACTION ..

**** WASTE ITEM NO. 6 URINE

STATE LIQUID

DENSITY 63.00 LBS/CU. FT.

ATTRIBUTES

ELFMENTS PRESENT ...

COMPOSITION WATER

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.01
DAILY RATE 0.01
BATCH SIZE 0.01

RECLAMATION ACTION .. DISTILL

S/C SUBSYSTEM BIOMEDICAL RESEARCH (D)

```
GROUP KEY ..... 3.5.1
** EQUIPMENT/EXPERIMENT NO. 4 .......GASTROINTESTINAL
**** WASTE SOURCE NO. 4 ... RENAL CALCULUS FORMATION IN RATS
***** WASTE ITEM NO. 7 .... FECES
         STATE ..... SEMI-SOLID
        DENSITY ..... 87.00 LBS/CU. FT.
        ATTRIBUTES .....
        ELEMENTS PRESENT ..
        COMPOSITION .... CHON
                                        QUANTITY (LBS)
         GENERATION DATA ...
                 EXPT. TOTAL
                                          0.03
                 DAILY RATE
                                          0.00
                 BATCH SIZE
                                          0.00
        RECLAMATION ACTION .. N/R
**** WASTE ITEM NO. 8 ... DATA SHEETS
         STATE ..... SOLID
         DENSITY ...... 72.00 LBS/CU. FT.
         ATTRIBUTES .... SHEETS
         ELEMENTS PRESENT ..
        CCMPOSITION ..... CELLULOSE
                                        QUANTITY (LBS)
         GENERATION DATA ...
                 EXPT. TOTAL
                                          0.10
                 DAILY RATE
                                          0.00
                  BATCH SIZE
                                          0.00
         RECLAMATION ACTION .. N/R
***** WASTE ITEM NO. 9 .... GLASS SLIDES
         STATE ..... SOLID
         DENSITY ..... 160.00 LBS/CU. FT.
         ATTRIBUTES ..... FLAT
         ELEMENTS PRESENT .. SIG2
         COMPOSITION .....
                                        QUANTITY (LBS)
         GENERATION DATA ...
                  EXPT. TOTAL
                                          0.50
                 DAILY RATE
                                          0.02
                  BATCH SIZE
                                          0.02
        RECLAMATION ACTION .. WASH
```

```
S/C SUBSYSTEM .... BIOMEDICAL RESEARCH (D)
    GROUP KEY .... 3.5.1
** EQUIPMENT/EXPERIMENT NO. 4 .....GASTROINTESTINAL **** WASTE SOURCE NO. 4 .... RENAL CALCULUS FORMATION IN RATS
***** WASTE ITEM NO. 10 .... LITTER
         STATE ..... SOLID
         DENSITY ..... 43.00 LBS/CU. FT.
         ATTRIBUTES .....
         ELEMENTS PRESENT ..
         COMPOSITION ......
GENERATION DATA ...
                                          QUANTITY (LBS)
                   EXPT. TOTAL
                                             0.40
                   DAILY RATE
                                              0.14
                   BATCH SIZE
                                              0.14
         RECLAMATION ACTION .. N/R
***** WASTE ITEM NO. 11 .... INSTRUMENT
         STATE ..... SCLID
         DENSITY ..... 20C.00 LBS/CU. FT.
          ATTRIBUTES .....
          ELEMENTS PRESENT ..
         COMPOSITION ..... VARIED
          GENERATION DATA ...
                                           QUANTITY (LBS)
                   EXPT. TOTAL
                                              5.00
                   DAILY RATE
                                              0.18
                   BATCH SIZE
                                              0.18
         RECLAMATION ACTION .. REPAIR
***** WASTE ITEM NO. 12 .... CHEMICALS
          STATE ...... SOLID, LIQUID
          DENSITY ..... 90.00 LBS/CU. FT.
          ATTRIBUTES .....
          ELEMENTS PRESENT ..
          COMPOSITION ..... URINALYSIS, COMPONENTS
          GENERATION DATA ...
                                            QUANTITY (LBS)
                   EXPT. TOTAL DAILY RATE
                                              3.00
                                              0.10
                                              0.10
                   BATCH SIZE
```

S/C SUBSYSTEM BIOMEDICAL RESEARCH (D) GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 4GASTROINTESTINAL

**** WASTE SOURCE NO. 5 RENAL INFECTION IN RATS

DOCUMENT NO. 3.5.1.4.5

REMARKS (1) FOR OPERATIONAL DESCRIPTION SEE DOCUMENT NO.A-3.5.1.4.4

**** WASTE ITEM NO. 1 4 RATS, ALBINO

STATE SOLID

DENSITY 0.00 LBS/CU. FT.

ATTRIBUTES

ELEMENTS PRESENT ..

COMPOSITION

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 4.40
DAILY RATE 0.00
BATCH SIZE 0.00

RECLAMATION ACTION .. N/R

**** WASTE ITEM NO. 2 TISSUE FIXATIVES

STATE LIQUID

DENSITY 112.00 LBS/CU. FT.

ATTRIBUTES CHEMICAL

ELEMENTS PRESENT ..

COMPOSITION WAXES

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 1.00
DAILY RATE 0.07
BATCH SIZE 0.07

QUANTITY (LBS)

11/30/70

RUN NO. ** 2 **

S/C SUBSYSTEM BIOMEDICAL RESEARCH (E) GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 5 METABOLISM AND NUTRITION

ASSOCIATED FPE NUMBER ... 5.13 S/C AREAS MEDICAL LABORATORY

**** WASTE SCURCE NO. 1 ... ENERGY METABOLISM

DOCUMENT NO. 3.5.1.5.1

REFERENCE NO. 1 .. MEDICAL ASPECTS OF AN DRBITING RESEARCH LABORATORY, NASA SPACE MEDICINE ADVISORY GROUP, NASA REPORT NO. SP-86, 1966

REFERENCE NO. 2 .. EXPERIMENT PROGRAM FOR EXTENDED EAPTH OR BITAL MISSIONS, REVISION NO. 1, SEPTEMBE R 1: 1969, NASA OMSF.

***** WASTE ITEM NO. 1 DATA SHEETS

STATE SOLID

DENSITY 72.00 LBS/CU. FT.

ATTRIBUTES PAPER

ELEMENTS PRESENT ..

COMPOSITION CELLULOSE

GENERATION DATA ... EXPT. TOTAL 1.00 0.00

DAILY RATE BATCH SIZE 0.02

RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 2 CHEMICAL FOR GAS ANALYSIS

STATE SCLID

DENSITY 70.00 LBS/CU. FT.

ATTRIBUTES LIQUID

ELEMENTS PRESENT ..

COMPOSITION KOH, K PYROGALLATE

GENERATION DATA ... QUANTITY (LBS)

5.00 EXPT. TOTAL DAILY RATE 0.00 BATCH SIZE 0.10

S/C SUBSYSTEM BIOMEDICAL RESEARCH (E) GROUP KEY 3.5.1

** E QUIPMENT/EXPERIMENT NO. 5 METABOLISM AND NUTRITION

**** WASTE SOURCE NO. 2 CARBOHYDRATE AND FAT METABOLISM

DOCUMENT NO. 3.5.1.5.2

REFERENCE NO. 1 .. MEDICAL ASPECTS OF AN ORBITING RESEARCH LABORATORY, NASA SPACE MEDICINE ADVISORY GROUP, NASA REPORT NO. SP-86, 1966

REFERENCE NO. 2 .. NASA EXPERIMENT DESCRIPTIONS FOR EXTENDE D APOLLO EARTH-ORBIT FLIGHTS, NASA HEADQ UARTERS, WASHINGTON, D.C. MARCH 1965.

REFERENCE NO. 3 .. EXPERIMENT PROGRAM FOR EXTENDED EARTH OR BITAL MISSIONS, REVISION NO. 1, SEPTEMBE R 1, 1969, NASA OMSF.

**** ** WASTE ITEM NO. 1 DATA SHEETS

STATE SOLID

DENSITY 44.00 LBS/CU. FT.

ATTRIBUTES PAPER

ELEMENTS PRESENT ...

COMPOSITION CELLULOSE

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.10
DAILY RATE 0.00
BATCH SIZE 0.00

RECLAMATION ACTION .. N/R

*** (* WASTE ITEM NO. 2 COMBISTIX (URINE)

STATE SOLID

DENSITY 70.00 LBS/CU. FT. ATTRIBUTES PAPER, IMPREGNATED

ELEMENTS PRESENT ..

COMPOSITION CELLULOSE

CENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.25
DAILY RATE 0.00
BATCH SIZE 0.00

```
S/C SUBSYSTEM .... BIOMEDICAL RESEARCH (E)
   GROUP KEY .... 3.5.1
** EQUIPMENT/EXPERIMENT NO. 5 ..... METABOLISM AND NUTRITION
**** WASTE SOURCE NO. 2 .... CARBOHYDRATE AND FAT METABOLISM
***** WASTE ITEM NO. 3 ... CHEMICALS (BLCOD SUGAR ETC.)
         STATE ..... VARIED
         DENSITY ..... 56.00 LBS/CU. FT.
         ATTRIBUTES ......
         ELEMENTS PRESENT .. FE, KI
         COMPOSITION ..... CU SALT
         GENERATION DATA ...
                                        QUANTITY (LBS)
                 EXPT. TOTAL
                                          0.25
                 DAILY RATE
                                          0.00
                 BATCH SIZE
                                          0.00
         RECLAMATION ACTION .. N/R
***** WASTE ITEM NO. 4 ... BLCOD
         STATE ..... LIGUID
         DENSITY ..... 65.52 LBS/CU. FT.
         ATTRIBUTES .....
         ELEMENTS PRESENT .. C.H.O.N
         COMPOSITION .....
         GENERATION DATA ...
                                        QUANTITY (LBS)
                 EXPT. TOTAL
                                          3.00
                 DAILY RATE
                                          0.00
                 BATCH SIZE
                                          0.05
         RECLAMATION ACTION ..
*** ** WASTE ITEM NO. 5 .... URINE
         STATE ..... LIQUID
         DENSITY ..... 63.60 LBS/CU. FT.
         ATTRIBUTES .....
         ELEMENTS PRESENT ..
         COMPOSITION ..... WATER
         GENERATION DATA ...
                                        QUANTITY (LBS)
                 EXPT. TOTAL
                                          4.00
                  DAILY RATE
                                          0.00
                  BATCH SIZE
                                          0.07
         RECLAMATION ACTION .. N/R
```

S/C SUBSYSTEM BIOMEDICAL RESEARCH (E) 3ROUP KEY **** 3.5.1 ** EQUIPMENT/EXPERIMENT NO. 5 METABOLISM AND NUTRITION **** WASTE SOURCE NO. 2 CARBOHYDRATE AND FAT METABOLISM **************************** ***** WASTE ITEM NO. 6 GAUZE STATE SOLID DENSITY 90.48 LBS/CU. FT. ATTRIBUTES POROUS ELEMENTS PRESENT ... COMPOSITION CELLULOSE QUANTITY (LBS) GENERATION DATA ... EXPT. TOTAL 0.30 DAILY RATE 0.00 0.00 BATCH SIZE RECLAMATION ACTION .. N/R **** WASTE ITEM NO. 7 ... NEEDLE STATE SOLID DENSITY 438.00 LBS/CU. FT. ATTRIBUTES STEEL, TUBE ELEMENTS PRESENT .. COMPOSITION FEC GENERATION DATA ... QUANTITY (LBS) EXPT. TOTAL 1.00 DAILY RATE 0.00 BATCH SIZE 0.02 RECLAMATION ACTION .. WASH **** WASTE ITEM NO. 8 SYRINGE STATE SOLID DENSITY 160.00 LBS/CU. FT. ATTRIBUTES GLASS, TUBE ELEMENTS PRESENT .. COMPOSITION SIO2 QUANTITY (LBS) GENERATION DATA ... EXPT. TOTAL 4.00 DAILY RATE 0.00 BATCH SIZE 0.07 RECLAMATION ACTION .. WASH

S/C SUBSYSTEM BIOMEDICAL RESEARCH (E) 3ROUP KEY 3.5.1

***** WASTE ITEM NO. 9 ... EQUIPMENT

STATE SOLID

DENSITY 200.00 LBS/CU. FT.

ATTRIBUTES

ELEMENTS PRESENT ..

COMPOSITION VARIED

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 5.00 DAILY RATE 0.70 BATCH SIZE 0.70

RECLAMATION ACTION .. REPAIR

```
S/C SUBSYSTEM .... BIOMEDICAL RESEARCH (E)
   GROUP KEY .... 3.5.1
** E DUIPMENT/EXPERIMENT NO. 5 .....METABOLISM AND NUTRITION
*** WASTE SOURCE NO. 3 .... PROTEIN METABOLISM
         DOCUMENT NO. ..... 3.5.1.5.3
        REMARKS ( 1) ..... FOR OPERATIONAL DESCRIPTION SEE COCUMENT
                           NO. A- 3.5.1.5.2
**** ** WASTE ITEM NO. 1 .... DATA SHEETS
         STATE ..... SOLID
         DENSITY ..... 44.00 LBS/CU. FT.
         ATTRIBUTES .... PAPER
         ELEMENTS PRESENT ..
         COMPOSITION .... CELLULOSE
         GENERATION DATA ...
                                        QUANTITY (LBS)
                  EXPT. TOTAL DAILY RATE
                                           0.10
                                           0.00
                  BATCH SIZE
                                           0.00
        RECLAMATION ACTION .. N/R
*** WASTE ITEM NO. 2 .... COMBISTIX (URINE)
         STATE ..... SOLID
        DENSITY ..... 7C.00 LRS/CU. FT.
         ATTRIBUTES ..... PAPER, IMPREGNATED
         ELEMENTS PRESENT ..
         COMPOSITION ..... CELLULOSE
         GENERATION DATA ...
                                        QUANTITY (LBS)
                  EXPT. TOTAL
                                           0.25
                  DAILY RATE
                                           0.00
                  BATCH SIZE
                                           0.00
         RECLAMATION ACTION .. N/R
** ** * WASTE ITEM NO. 3 .... CHEMICALS FOR BUN
         STATE ..... SOLID
         DENSITY ..... 70.00 LBS/CU. FT.
         ATTRIBUTES .... PAPER
         FLEMENTS PRESENT ..
         COMPOSITION .....
         GENERATION DATA ...
                                        QUANTITY (LBS)
                  EXPT. TCTAL
                                           0.25
                  DAILY RATE
                                           0.00
                  BATCH SIZE
                                           0.00
        RECLAMATION ACTION .. N/R
```

S/C SUBSYSTEM BIOMEDICAL RESEARCH (E) GROUP KEY 3.5.1 ** EQUIPMENT/EXPERIMENT NO. 5METABOLISM AND NUTRITION **** WASTE SOURCE NO. 3 PROTEIN METABOLISM ***************** ***** WASTE ITEM NO. 4 ... BLCOD STATE LIQUID DENSITY 65.52 LBS/CU. FT. ATTRIBUTES ELEMENTS PRESENT .. C.H.O.N COMPOSITION QUANTITY (LBS) GENERATION DATA ... EXPT. TOTAL 3.00 0.00 DAILY RATE BATCH SIZE 0.04 RECLAMATION ACTION .. N/R ***** WASTE ITEM NO. 5 ... URINE STATE LICUID DENSITY 63.60 LBS/CU. FT. ATTRIBUTES FLEMENTS PRESENT .. COMPOSITION WATER GENERATION DATA ... QUANTITY (LBS) EXPT. TOTAL 4.00 DAILY RATE 0.00 BATCH SIZE 0.06 RECLAMATION ACTION .. N/R **** WASTE ITEM NO. 6 GAUZE STATE SOLID DENSITY 90.48 LBS/CU. FT. ATTRIBUTES POROUS ELEMENTS PRESENT .. COMPOSITION CELLULOSE QUANTITY (LBS) GENERATION DATA ... EXPT. TOTAL 3.00

> DAILY RATE BATCH SIZE

RECLAMATION ACTION .. N/R

0.00

0.04

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S/C SUBSYSTEM .... BIOMEDICAL RESEARCH (E) 3ROUP KEY .... 3.5.1
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11/30/70

***** WASTE ITEM NO. 7 NEEDLE
STATE SOLID
DENSITY 488.00 LBS/CU. FT.
ATTRIBUTES STEEL, TUBE

COMPOSITION FEC

GENERATION DATA ... QUANTITY (LBS)
EXPT. 10TAL 1.00
DAILY RATE 0.00
BATCH SIZE 0.01

RECLAMATION ACTION .. WASH

***** WASTE ITEM NO. 8 SYRINGE STATE SOLID

DENSITY 16C.00 LBS/CU. FT.

ATTRIBUTES GLASS, TUBE

ELEMENTS PRESENT ...

COMPOSITION SIC2

GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 4.00
DAILY RATE 0.00
BATCH SIZE 0.06

RECLAMATION ACTION .. WASH

S/C SUBSYSTEM BIOMEDICAL RESEARCH (E) ROUP KEY 3.5.1

**** WASTE SOURCE NO. 4 FLUID AND ELECTROLYTE BALANCE

COCUMENT NO. 3.5.1.5.4

REFERENCE NO. 1 .. MEDICAL ASPECTS OF AN ORBITING RESEARCH LABORATORY, NASA SPACE MEDICINE ADVISORY GROUP, NASA REPORT NO. SP-86, 1966

REFFRENCE NO. 2 .. NASA EXPERIMENT DESCRIPTIONS FOR EXTENDE D APOLLO EARTH-DRBIT FLIGHTS, NASA HEADQ UARTERS, WASHINGTON, D.C., MARCH 1965.

REFERENCE NO. 3 .. EXPERIMENT PROGRAM FOR EXTENDED EARTH OR BITAL MISSIONS, REVISION NO. 1, SEPTEMBE R 1, 1969, NASA DMSF.

STBBHS ATAD 1 .CM MBTI BTSAW ** * * * * * *

STATE SOLID

DENSITY 44.00 LBS/CU. FT.

ATTRIBUTES PAPER

FLEMENTS PRESENT ..

COMPOSITION CELLULOSE

GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.10
DAILY RATE 0.00
BATCH SIZE 0.00

RECLAMATION ACTION .. N/R

**** WASTE ITEM NO. 2 COMBISTIX (URINE)

STATE SOLID

DENSITY 64.20 LBS/CU. FT. ATRIBUTES PAPER, IMPREGNATED

ELEMENTS PRESENT ..

COMPOSITION CELLULOSE

GENFRATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.25
DAILY RATE 0.00
BATCH SIZE 0.00

S/C SUBSYSTEM BIOMEDICAL RESEARCH (E) GROUP KEY 3.5.1 ** EJUIPMENT/EXPERIMENT NO. 5METABOLISM AND NUTRITION **** WASTE SOURCE NJ. 4 FLUID AND ELECTROLYTE BALANCE **** WASTE ITEM NO. 3 CHEMICALS (BLOOD SUGAR) GAS ANALYSIS STATE VARIED DENSITY 56.00 LBS/CU. FT. ATTRIBUTES ELEMENTS PRESENT .. FE, KI COMPOSITION CU SALT, KOH, K PYROGALLATE GENERATION DATA ... QUANTITY (LBS) EXPT. TOTAL 0.25 DAILY RATE 0.00 BATCH SIZE 0.00 RECLAMATION ACTION .. N/R ***** WASTE ITEM NO. 4 ... BLOOD STATE LIQUID DENSITY 65.52 LBS/CU. FT. ATTRIBUTES ELEMENTS PRESENT .. C, H, O, N COMPOSITION GENERATION DATA ... QUANTITY (LBS) EXPT. TOTAL 4.00 DAILY RATE 0.00 BATCH SIZE 0.07 RECLAMATION ACTION .. **** WASTE ITEM NO. 5 URINE STATE LIQUID DENSITY 63.60 LBS/CU. FT. ATTRIBUTES ELEMENTS PRESENT .. COMPOSITION WATER GENERATION DATA ... QUANTITY (LBS) EXPT. TOTAL 4.00 DAILY RATE 0.00 BATCH SIZE 0.07 RECLAMATION ACTION .. N/R

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S/C SURSYSTEM .... BIOMEDICAL RESEARCH (E)
   3ROUP KEY .... 3.5.1
** E JUIPMENT/EXPERIMENT NO. 5 .....METABOLISM AND NUTRITION
*** WASTE SOURCE AG. 4 ... FLUID AND ELECTROLYTE BALANCE
**** WASTE ITEM NO. 6 .... GADZE
         STATE ..... SOLID
         DENSITY ...... 9C.48 LBS/CU. FT.
         ATTRIBUTES ..... PORDUS
         ELEMENTS PRESENT ..
         CCMPOSITION ..... CELLULOSE
         GENERATION DATA ...
                                        QUANTITY (LBS)
                 EYPT. 101AL
                                          0.30
                 DAILY RATE
                                          0.00
                 BATCH SIZE
                                          0.00
         RECLAMATION ACTION .. N/R
ቅጵቀሉ ™ WASTE ITEM NU. 7 .... NEEDLE
         STATE .... SOLID
         DENSITY ..... 488.00 LBS/CU. FT.
         ATTRIBUTES ..... STEEL, TUBE
         FLEMENTS PRESENT ..
         COMPOSITION ..... FEC
         GENERATION DATA ...
                                        QUANTITY (LRS)
                 EXOT. TOTAL
                                          1.00
                 DAILY RATE
                                          0.00
                 BATCH SIZE
                                          0.02
         PECEAMATION ACTION .. WASH
#***** WASTE 11EM NO. 8 .... SYRINGE
         STATE ..... SOLID
         DENSITY ...... 160.00 LBS/CU, FT.
         ATTRIBUTES ..... GLASS, TUBE
         ELEMENTS PRESENT ..
         COMPOSITION ..... SIO2
                                        QUANTITY (LBS)
         GENERATION DATA ...
                 EXPT. TOTAL.
                                          4.00
                 DAILY RATE
                                          0.00
                 34TCH SIZE
                                          7.00
```

RECLAMATION ACTION .. WASH

```
S/C SUBSYSTEM .... BIOMEDICAL RESEARCH (E)
    7RQUP KEY .... 3.5.1
** EQUIPMENT/FXPERIMENT NO. 5 .....NETABOLISM AND NUTRITION
**** WASTE SOURCE NO. 4 .... FLUID AND ELECTROLYTE BALANCF
**** WASTE ITEM NO. 9 .... ISOTOPES
         STATE ..... LIQUID
         DENSITY ..... 64.00 LBS/CU. FT.
         ATTRIBUTES .....
         ELEMENTS PRESENT ..
         COMPOSITION ..... DFP32CR31
         GENERATION DATA ...
                                         QUANTITY (LBS)
                  EXPl. TOTAL
                                            0.75
                  DAILY RATE
                                            0.00
                  BATCH SIZE
                                            0.01
         RECLAMATION ACTION .. N/R
****** WASTE ITEM NO. 10 .... INSTRUMENTS
          STATE ..... SOLID
         DENSITY ..... 90.00 LBS/CU. FT.
          ATTRIBUTES ..... GLASS
         ELEMENTS PRESENT ..
         COMPOSITION ..... VARIED
                                         QUANTITY (LBS)
          GENERATION DATA ...
                  EXPT. TOTAL DAILY RATE
                                            5.00
                                            0.10
                  BATCH SIZE
                                            0.10
         RECLAMATION ACTION .. REPAIR
**** WASTE ITEM NO. 11 .... ELECTROPHORESIS PAPER
          STATE ..... SOLID
         DENSITY ..... 79.00 LBS/CU. FT.
          ATTRIBUTES ..... PAPER
          ELEMENTS PRESENT ..
          COMPOSITION ..... CELLULGSE
         GENERATION DATA ...
                                         QUANTITY (LBS)
                   EXPT. TOTAL
                                            5.00
                                            0.00
                  DAILY RATE
                   BATCH SIZE
                                            0.08
         RECLAMATION ACTION .. N/R
```

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S/C SUBSYSTEM .... BIOMEDICAL RESEARCH (E) SROUP KEY .... 3.5.1
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***** WASTE ITEM NO. 12 URINE N. CHEMICALS STATE SOLID DENSITY C.00 LBS/CU. FT.

ATTRIBUTES LIQUID

ELEMENTS PRESENT ..

COMPOSITION H2SO4-NH4,OH, (KI)2, HGI2

GENERATION DATA ... QUANTIFY (LBS)
EXPT. 10TAL 5.00
DAILY RATE 0.00
BATCH SIZE 0.08

RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 13 DATA SHEETS

STATE SOLID

DENSITY 44.00 LBS/CU. FT.

ATTRIBUTES PAPER

ELEMENTS PRESENT ..

COMPOSITION CELLULOSE

GENERATION DATA ... - QUANTITY (LBS)

EXPT. TOTAL 0.10
DAILY RATE 0.00
BATCH SIZE 0.00

RECLAMATION ACTION .. N/R

**** WASTE ITEM NO. 14 STAINS

STATE LIQUID

DENSITY 64.20 LBS/CU. FT.

ATTRIBUTES DYE

ELEMENTS PRESENT ..

COMPOSITION AMIDO-SCWARZ 10

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.10
DAILY RATE 0.00
BATCH SIZE 0.00

RECLAMATION ACTION .. COLLECT EXCESS

S/C SUBSYSTEM BIOMEDICAL RESEARCH (E) GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 5METABOLISM AND NUTRITION

**** WASTE SOURCE NO. 4 FLUID AND ELECTROLYTE BALANCF

**** WASTE ITEM NO. 15 COMBISTIX (URINE)

STATE SOLID

DENSITY 70.00 LBS/CU. FT. ATTRIBUTES PAPER, IMPREGNATED

ELEMENTS PRESENT ..

COMPOSITION CELLULOSE

GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.25
DAILY RATE 0.00
BATCH SIZE 0.00

RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 16 ISOTOPES

STATE LIQUID

DENSITY 64.00 LBS/CU. FT.

ATTRIBUTES

ELEMENTS PRESENT ...

COMPOSITION DFP32CR31

GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.75
DAILY RATE 0.00

0.01

- BATCH SIZE RECLAMATION ACTION .. COLLECT

**** WASTE ITEM NO. 17 CHEMICALS (BLOOD SUGAR) URINF N

STATE VARIED

DENSITY 56.00 LBS/CU. FT.

ATTRIBUTES

ELEMENTS PRESENT .. FE, KI-

COMPOSITION CU SALT, H2SO4-NH4OH

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL, 0.25
DAILY RATE 0.00
BATCH SIZE 0.00

0.50

0.00

S/C SUBSYSTEM BIOMEDICAL RESEARCH (E) GROUP KEY 3.5.1 ** EQUIPMENT/EXPERIMENT NO. 5METABOLISM AND NUTRITION *** WASTE SOURCE NO. 4 ... FLUID AND ELECTROLYTE BALANCE **** ** WASTE ITEM NO. 18 BLGOD STATE LIQUID DENSITY 65.52 LBS/CU. FT. ATTRIBUTES ELEMENTS PRESENT .. C. H. C.N COMPOSITION QUANTITY (LBS) GENERATION DATA ... EXPT. TOTAL 4.00 DAILY RATE 0.00 0.08 BATCH SIZE RECLAMATION ACTION .. N/R ***** WASTE ITEM NO. 19 URINE STATE LIQUID DENSITY 63.60 LBS/CU. FT. ATTRIBUTES FLEMENTS PRESENT ... COMPOSITION WATER QUANTITY (LBS) GENERATION DATA ... 4.00 EXPT. TOTAL 0.00 DAILY RATE BATCH SIZE 0.08 PECLAMATION ACTION .. N/R **** WASTE ITEM NO. 20 GAUZE STATE SOLID DENSITY 90.48 LBS/CU. FT. ATTRIBUTES POROUS ELEMENTS PRESENT .. COMPOSITION CELLULOSE QUANTITY (LBS) GENERATION DATA ...

EXPT. TOTAL

DAILY RATE

BATCH SIZE

RECLAMATION ACTION .. N/R

11/30/70

S/C SUBSYSTEM BIOMEDICAL RESEARCH (E) GROUP KEY 3.5.1 ** EQUIPMENT/EXPERIMENT NO. 5 METABOLISM AND NUTRITION **** WASTE SOURCE NO. 4 FLUID AND ELECTROLYTE BALANCE ****** WASTE ITEM NO. 21 NEEDLE STATE SOLID DENSITY 488.00 LBS/CU. FT. ATTRIBUTES STEEL, TUBE ELEMENTS PRESENT .. COMPOSITION FEC GENERATION DATA ... QUANTITY (LBS) EXPT. TOTAL 1.00 DAILY RATE 0.00 BATCH SIZE 0.02 RECLAMATION ACTION .. WASH ***** WASTE ITEM NO. 22 SYRINGE STATE SOLID DENSITY 160.00 LBS/CU. FT. ATTRIBUTES GLASS, TUBE ELEMENTS PRESENT .. COMPOSITION SID2 GENERATION DATA ... QUANTITY (LBS) EXPT. TOTAL 4.00 DAILY RATE 0.00 BATCH SIZE 0.08 RECLAMATION ACTION .. WASH ***** WASTE ITEM NO. 23 INSTRUMENT STATE SOLID DENSITY 166.00 LBS/CU. FT. ATTRIBUTES (HEMICAL, GLASS ELEMENTS PRESENT .. HG, H COMPOSITION SIO2 GENERATION DATA ... QUANTITY (LBS) EXPT. TOTAL 5.00 DAILY RATE 0.00 BATCH SIZE 0.10 RECLAMATION ACTION .. REPAIR

```
S/C SUBSYSTEM .... BIOMEDICAL RESEARCH (E)
   JROUP KEY .... 3.5.1
** EQUIPMENT/EXPERIMENT NO. 5 ..... METABOLISM AND NUTRITION
**** WASTE SOURCE NO. 5 ... MINERAL METABOLISM
         DOCUMENT NO. ..... 3.5.1.5.5
         REMARKS ( 1) ..... FOR OPERATIONAL DESCRIPTION SEE DOCUMENT
                            NO. A- 3.5.1.5.4
**** WASTE ITEM NO. 1 .... DATA SHEETS
         STATE .... SOLID
         DENSITY ..... 44.00 LBS/CU. FT.
         ATTRIBUTES ..... PAPER
         ELEMENTS PRESENT ...
         COMPOSITION ..... CELLULOSE
         GENERATION DATA ...
                                        QUANTITY (LBS)
                  EXPT. TUTAL
                                          0.10
                  DAILY RATE
                                           0.00
                  BATCH SIZE
                                           0.00
         RECLAMATION ACTION .. N/R
***** WASTE ITEM NO. 2 ... COMBISTIX
         STATE ..... SOLID
         DENSITY ...... 70.00 LBS/CU. FT.
         ATTRIBUTES ..... PAPER, IMPREGNATED
         FLEMENTS PRESENT ..
         COMPOSITION ..... CELLULOSE
                                         QUANTITY (LBS)
        GENERATION DATA ...
                  EXPT. TOTAL
                                           0.25
                  DAILY RATE
                                           0.00
                  BATCH SIZE
                                           0.00
         RECLAMATION ACTION .. N/R
*** WASTE ITEM NO. 3 .... CHEMICAL, SERUM, AND URINARY TESTS
         STATE ..... SOLID , LIQUID
         DENSITY ..... 56.00 LBS/CU. FT.
         ATTERUTES ......
         FLEMENTS PRESENT ...
         COMPOSITION ..... NH4)2C2O4, H2D, METHYLRED, SNCL, MOLYBDATE,
                           KMN04
                                         QUANTITY (LBS)
         GENERATION DATA ...
                  EXPT. TOTAL
                                           0.25
                                           0.00
                  DAILY RATE
                  BATCH SIZE
                                           0.00
         RECLAMATION ACTION .. N/R
```

S/C SUBSYSTEM BIOMEDICAL RESEARCH (E) GROUP KEY 3.5.1 ** EQUIPMENT/EXPERIMENT NO. 5METABOLISM AND NUTRITION **** WASTE SOURCE NO. 5 ... MINERAL METABOLISM **** ** WASTE ITEM NO. 4 BLOOD STATE LIQUID DENSITY 65.52 LBS/CU. FT. ATTRIBUTES ELEMENTS PRESENT .. C+H+O+N COMPOSITION GENERATION DATA ... QUANTITY (LBS) EXPT. TOTAL 4.00 DAILY RATE 0.00 BATCH SIZE 0.08 RECLAMATION ACTION .. N/R /**** WASTE ITEM NO. 5 URINE STATE LIQUID DENSITY 63.60 LBS/CU. FT. ATTRIBUTES ELEMENTS PRESENT .. COMPOSITION WATER QUANTITY (LBS) GENERATION DATA ... EXPT. TOTAL 4.00 0.00 DAILY RATE BATCH SIZE 0.08 RECLAMATION ACTION .. N/R ***** WASTE ITEM NO. 6 GAUZE STATE SOLID DENSITY 90.48 LBS/CU. FT. ATTRIBUTES POROUS ELEMENTS PRESENT .. COMPOSITION CELLULOSE QUANTITY (LBS) GENERATION DATA ... EXPT. TOTAL 0.30 DAILY RATE 0.00 BATCH SIZE 0.01 RECLAMATION ACTION .. N/R

```
S/C SUBSYSTEM .... BIOMEDICAL RESEARCH (E) SROUP KEY .... 3-5.1
```

***** WASTE ITEM NO. 7 NEEDLE

STATE SOLID

DENSITY 488.00 LBS/CU. FT.

ATTRIBUTES STEEL, TUBE

ELEMENTS PRESENT ..

CCMPOSITION FEC

CENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 1.00
DAILY RATE 0.00
BATCH SIZE 0.02

RECLAMATION ACTION .. WASH

** > * * WASTE ITEM NO. 8 SYRINGE

STATE SOLID

DENSITY 16C.00 LBS/CU. FT.

ATTRIBUTES STEEL, TUBE

ELEMENTS PRESENT ..

COMPOSITION SIC2

GENERATION DATA ... - QUANTITY (LBS)

EXPT. TOTAL 4.00
DAILY RATE 0.00
BATCH SIZE 0.08

RECLAMATION ACTION .. WASH

**** * WASTE ITEM NO. 9 INSTRUMENTS

STATE SOLID

DFNSITY 90.00 LBS/CU. FT.

ATTRIBUTES GLASS, CHEMICAL

ELEMENTS PRESENT .. H, HG

COMPOSITION SIO2, CALOMEL

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 5.00
DAILY RATE 0.00
BATCH SIZE 0.10

RECLAMATION ACTION .. REPAIR IF POSSIBLE

SIC SURSYSTEM BIOMEDICAL RESEARCH (E) ROUP KTY 3.5.1

11/31/70

**** WASTE SOURCE NO. 6 BICASSAY OF BODY FLUIDS

DOCUMENT NO. 3.5.1.5.6

REMARKS (1) FOR OPERATIONAL DESCRIPTION SEE DOCUMENT NO. A- 3.5.1.5.4

**** WASTE ITEM NO. 1 DATA SHEETS

STATE SOLID

DENSITY 44.00 LBS/CU. FT.

ATTRIBUTES PAPER

ELEMENTS PRESENT ...

COMPOSITION CELLULOSE

GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.10
DAILY RATE 0.00
BATCH SIZE 0.00

RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 2 STAINS

STATE LIGUID

DENSITY 64.20 LBS/CU. FT.

ATTRIBUTES DYE

CLEMENTS PRESENT ..

CCMPOSITION AMIDO-SCHWARZ 10

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.10
DAILY RATE 0.00
BATCH SIZE 0.00

RECLAMATION ACTION .. COLLECT EXCESS

ペペカナヤギ WASTE ITEM NO. 3 COMBISTIX (URINE)

STATE SOLID

DENSITY 70.00 LBS/CU. FT. ATTRIBUTES PAPER IMPREGNATED

ELETENTS PRESENT ..

CCMPOSITION CELLULOSE

GENERATION DATA ... QUANTITY (LBS)

EXPT. [0]AL 0.25
DAILY RATE 0.00
BATCH SIZE 0.00

11/30/70 RUN NO. ** 2 ** 1 S/C SUBSYSTEM BIOMEDICAL RESEARCH (E) 3ROUP KEY 3.5.1 ** EJUIPMENT/EXPERIMENT NO. 5METABOLISM AND NUTRITION *> * WASTE SOURCE NO. 6 ... BICASSAY OF BODY FLUIDS ***** WASTE ITEM NO. 4 ISOTOPES STATE LIGUID DENSITY 64.00 LBS/CU. FT. ATTRIBUTES ELEMENTS PRESENT .. COMPOSITION DFP32CR31 GENERATION DATA ... QUANTITY (LBS) EXPT. TOTAL 0.75 DAILY RATE 0.00 BATCH SIZE 0.01 RECLAMATION ACTION .. COLLECT ***** WASTE- ITEM NO. 5 CHEMICALS (BLOOD, SUGAR) URINE N. STATE VARIED DENSITY 56.00 LBS/CU. FT. ATTRIBUTES ELEMENTS PRESENT .. FE, KI COMPOSITION CU SALT, H2SO4, NH4CH GENERATION DATA ... QUANTITY (LBS) EXPT. TOTAL 0.25 DAILY RATE 0.00 BATCH SIZE 0.00 RECLAMATION ACTION .. N/R **** WASTE ITEM NO. 6 ... BLGOD STATE LIQUID

DENSITY 65.52 LBS/CU. FT.

ATTRIBUTES

ELEMENTS PRESENT .. C, H, D, N

COMPOSITION

QUANTITY (LBS) GENERATION DATA ... EXPT. TOTAL 4.00 DAILY RATE 0.00 BATCH SIZE 0.08 RECLAMATION ACTION .. N/R

```
S/C SUBSYSIEM .... BIOMEDICAL RESEARCH (E)
   JROUP KEY .... 3.5.1
** EQUIPMENT/EXPERIMENT NO. 5 ..... METABOLISM AND NUTRITION
**** WASTE SOURCE NO. 6 ... BIOASSAY OF BODY FLUIDS
***** WASTE ITEM NO. 7 .... URINE
         STATE ..... LIQUID
         DENSITY ..... 63.60 LBS/CU. F1.
         ATTRIBUTES .....
         ELEMENTS PRESENT ..
         COMPOSITION ..... WATER
                                        QUANTITY (LBS)
         GENERATION DATA ...
                  EXPT. TOTAL
                                           4.00
                  DAILY RATE
                                           0.00
                  BATCH SIZE
                                           0.08
         RECLAMATION ACTION .. N/R
ኣቱዹኔ* WASTE ITEM NO. 8 .... GAUZE
         STATE ..... SOLID
         DENSITY ..... 90.48 LBS/CU. FT.
         ATTRIBUTES .... POROUS
         ELEMENTS PRESENT ..
         COMPOSITION ..... CELLULOSE
         GENERATION DATA ...
                                        QUANTITY (LBS)
                  EXPT. TOTAL
                                           0.50
                  DAILY PATE
                                           0.00
                  BATCH SIZE
                                           0.01
         RECLAMATION ACTION .. N/R
**** WASTE ITEM NO. 9 .... NEEDLE
         STATE ...... SOLID
         DENSITY ..... 488.00 LBS/CU. FT.
         ATTRIBUTES ..... STEEL, TUBE
         ELEMENTS PRESENT ..
         COMPOSITION ..... FEC
         GENERATION DATA ...
                                        QUANTITY (LBS)
                  EXPT. TOTAL DAILY RATE
                                           1.00
                                           0.00
                  BATCH SIZE
                                          0.02
         RECLAMATION ACTION ... WASH
```

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S/C SUBSYSTEM .... BIOMEDICAL RESEARCH (E)

3ROUP KEY .... 3.5.1

** FQUIP: ENT/EXPERIMENT NO. 5 .... METABOLISM AND NUTRITION
```

**** WASTE SOURCE NO. 6 BIGASSAY OF BODY FLUIDS

***** WASTE ITEM NO. 10 SYRINGE
STATE SOLID

DENSITY 16C.00 LBS/CU. FT.

ATTRIBUTES GLASS, TUBE

ELEMENIS PRESENT ..

CCMPOSITION SIG2

GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 4.00
DAILY RATE 0.00
BATCH SIZE 0.08

RECLAMATION ACTION .. WASH

**** WASTE ITEM NO. 11 INSTRUMENT

STATE SOLID

DENSITY 166.00 LBS/CU. FT. ATTRIBUTES CHEMICAL, GLASS

ELEMENTS PRESENT .. HG, H COMPOSITION SIG2

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 5.00 DAILY RATE 0.00 BATCH SIZE 0.10

RECLAMATION ACTION ...

```
S/C SUBSYSTEM .... BIOMEDICAL RESEARCH (F)
    GROUP KEY .... 3.5.1
** EQUIPMENT/EXPERIMENT NO. 6 ..... MUSCULOSKELETAL
         ASSOCIATED FPE NUMBER ... 5.13
         S/C AREAS ..... MEDICAL LABORATORY
**** WASTE SOURCE NO. I .... BONE DENSITY
         DOCUMENT NO. ..... 3.5.1.6.1
         REFERENCE NO. 1 .. MEDICAL ASPECTS OF AN ORBITING RESEARCH
                           LABORATORY NASA SPACE MEDICINE ADVISORY
                           GROUP, NASA REPORT NO.SP-86,1960.
         REFERENCE NO.
                       2 .. NASA EXPERIMENT DESCRIPTIONS FOR EXTENDE
                           D APOLLO EARTH-ORBIT FLIGHTS, NASA HEADOU
                           ARTERS, WASHINGTON, D.C., MARCH 1965.
         REFERENCE NO.
                       3 .. EXPERIMENT PROGRAM FOR EXTENDED EARTH OR
                           BITAL MISSIONS, REVISION NO.1, SEPTEMBER 1
                           v1969, NASA OMSF.
** ** WASTE ITEM NO. 1 .... BLOOD
         STATE ..... LIGUID
         DENSITY ..... 63.60 LBS/CU. FT.
         ATTRIBUTES .....
         ELEMENTS PRESENT ..
         COMPOSITION ..... WATER
         GENERATION DATA ...
                                         QUANTITY (LBS)
                  EXPT. TOTAL
                                            4.00
                  DAILY RATE
                                            0.00
                  BATCH SIZE
                                            0.07
         RECLAMATION ACTION .. N/R
**** WASTE ITEM NO. 2 .... URINE
         STATE ..... LIQUID
         DENSITY ..... 65.50 LBS/CU. FT.
         ATTRIBUTES .....
         ELEMENTS PRESENT ..
         COMPOSITION ..... WATER
         GENERATION DATA ...
                                         QUANTITY (LBS)
```

6.00

0.00

0.11

EXPT. TOTAL

DAILY RATE

BATCH SIZE

RECLAMATION ACTION .. DISTILL, N/R

S/C SUBSYSTEM BIOMEDICAL RESEARCH (F) SROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 6MUSCULOSKELETAL *** WASTE SOURCE NO. 1 BONE DENSITY

***** WASTE ITEM NO. 3 SYRINGE STATE SOLID

11/30/70

DENSITY 160.00 LBS/CU. FT.

ATTRIBUTES GLASS TUBE

ELEMENTS PRESENT .. SIO2

COMPOSITION

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 5.00 DAILY RATE 0.00 BATCH SIZE 0.10

RECLAMATION ACTION .. WASH

**** WASTE ITEM NJ. 4 ... NEEDLE

STATE SOLID

DENSITY 488.00 LBS/CU. FT.

ATTRIBUTES STEEL TUBE

FLEMENTS PRESENT .. FEC

COMPOSITION

GENERATION DATA ... _ QUANTITY (LBS)

EXPT. TOTAL 1.50
DAILY RATE 0.00
BATCH SIZE 0.03

RECLAMATION ACTION .. WASH

**** ** WASTE ITEM NO. 5 CHEM. SERUM, URINE, FECAL CAGP S. FHOSPYATAS

STATE LIQUID, SOLID

DENSITY 56.00 LBS/CU. FT.

ATTRIBUTES

ELEMENTS PRESENT ..

COMPOSITION TCA, ALK. PHOSPHATASE SUBSTRATE PHOSPHATAB
S

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 3.00 DAILY RATE 0.00 BATCH SIZE 0.05

S/C SUBSYSIEM BIOMEDICAL RESEARCH (F) GROUP KEY 3.5.1 ** EQUIPMENT/EXPERIMENT NO. 6MUSCULOSKELETAL *** * WASTE SOURCE NO. 1 BONE DENSITY ***** WASTE ITEM NO. 6 ... GAUZE STATE SOLID DENSITY 90.48 LBS/CU. FT. ATTRIBUTES POROUS ELEMENTS PRESENT .. COMPOSITION CELLULOSE QUANTITY (LBS) GENERATION DATA ... EXPT. TOTAL 0.50 DAILY RATE 0.00 BATCH SIZE 0.01 RECLAMATION ACTION .. N/R **** WASTE ITEM NO. 7 DATA SHEETS STATE SOLID DENSITY 72.00 LBS/CU. FT. ATTRIBUTES SHEET ELEMENTS PRESENT .. COMPOSITION CELLULOSE GENERATION DATA ... QUANTITY (LBS) EXPT. 101AL 0.30 DAILY RATE 0.00 BATCH SIZE 0.00 RECLAMATION ACTION .. N/R **** WASTE ITEM NO. 8 ISOTOPES STATE LIQUID DENSITY 0.00 LBS/CU. FT. ATTRIBUTES ELEMENTS PRESENT ... COMPOSITION GENERATION DATA ... QUANTITY (LBS) EXPT. TOTAL .. 0.00 DAILY RATE 0.00 BATCH SIZE 0.00

```
S/C SUBSYSTEM ..... BIOMEDICAL RESEARCH (F) GROUP KEY ..... 3.5.1
```

**** WASTE SOURCE NO. 2 FRACTURE HEALING IN ATIMALS

DOCUMENT NO. 3.5.1.6.2

REFERENCE NO. 1 .. EXPERIMENT PROGRAM FOR EXTENDED EARTH OR BITAL MISSIONS, REVISION NO. 1, SEPTEMBER 1, 1969, NASA OMSF.

REFERENCE NO. 2 .. EFFECT OF RESTRAINT, STRESS AND FASTING D
N ORGAN SIZE IN THE DOMESTIC FOWL. PHYSIO
LOGIST 10 125, 1967.

RFFERENCE NO. 3 .. PHYSIOLOGICAL LIMITATIONS ON ANIMAL PEST RAINT, AEROSPACE MEDICINE, 38 1130, 1967.

REFERENCE NO. 4 .. CRITERIA FOR PHYSICLOGIC STRESS AND ADAP TATION. PHYSIOLOGIST 10 137,1967.

**** WASTE ITEM NO. 1 ISOTOPES

STATE LIQUID

DENSITY 0.00 LBS/CU. FT.

ATTRIBUTES CHEMICAL

ELEMENTS PRESENT ..

COMPOSITION

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.00
DAILY RATE 0.00
BATCH SIZE 0.00

RECLAMATION ACTION .. N/R

**** WASTE ITEM NO. 2 CHEMICALS FOR SERUM PHOSPHATE CA & P

STATE SOLID, LIQUID

CENSITY 56.00 LBS/CU. FT.

ATTRIBUTES

ELEMENTS PRESENT ...

COMPOSITION TCA ALK. PHOSPHATESE SUBSTRATE, PHOSPHATAB

S ALKALINE TABLET TCA

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.30
DAILY RATE 0.00
BATCH SIZE 0.01

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S/C SUBSYSTEM .... BIOMEDICAL RESEARCH (F)
   3ROUP KEY .... 3.5.1
** EJU1PMENT/EXPERIMENT NO. 6 .....MUSCULOSKELETAL
**** WASTE SOURCE NO. 2 .... FRACTURE HEALING IN ANIMALS
***** WASTE ITEM NO. 3 ... TISSUE FIXATIVES(ZENKERS)
        STATE ..... LIQUID
        DENSITY ...... 112.00 LBS/CU. FT.
         ATTRIBUTES .....
        ELEMENTS PRESENT .. K2CR2O7, HGCL2, CH3COOH
        COMPOSITION .....
                                        QUANTITY (LBS)
        GENERATION DATA ...
                 EXPT. TOTAL
                                           2.00
                 DAILY RATE
                                           0.00
                  BATCH SIZE
                                           0.05
        RECLAMATION ACTION .. COLLECT EXCESS
***** WASTE ITEM NO. 4 .... LITTER
        STATE ..... SOLID
        DENSITY ..... 43.00 LBS/CU. FT.
         ATTRIBUTES .....
         ELEMENTS PRESENT ..
        COMPOSITION .....
         GENERATION DATA ...
                                        QUANTITY (LBS)
                  EXPT. TOTAL
                                           5.00
                  DAILY RATE
                                           0.00
                  BATCH SIZE
                                          0.12
        RECLAMATION ACTION .. N/R
**** ** MASTE ITEM NO. 5 ... WATER WASTE
         STATE ..... LIQUID
         DENSITY ..... 62.40 LBS/CU. FT.
         ATTRIBUTES ......
        ELEMENTS PRESENT ..
        COMPOSITION .... WATER
                                        QUANTITY (LBS)
         GENERATION DATA ...
                  EXPT. TOTAL
                                           6.00
                  DAILY RATE
                                           0.00
                  BATCH SIZE
                                           0.14
         RECLAMATION ACTION .. DISTILL .OR N/R
```

```
S/C SUBSYSTEM .... BIOMEDICAL RESEARCH (F)
   GROUP KEY .... 3.5.1
** E QUIPMENT/EXPERIMENT NO. 6 ......MUSCULOSKELETAL
**** WASTE SOURCE NO. 2 .... FRACTURE HEALING IN ANIMALS
***** WASTE ITEM NO. 6 .... FOOD WASTE
         STATE ..... SOLID
         DENSITY ..... 95.00 LBS/CU. FT.
         ATTRIBUTES .... PARTICLES
         ELEMENTS PRESENT ..
         COMPOSITION ..... COHN
                                        QUANTITY (LBS)
         GENERATION DATA ...
                 EXPT. TOTAL
                                          2.00
                 DAILY RATE
                                          0.00
                 BATCH SIZE
                                          0.05
         RECLAMATION ACTION .. N/R
***** WASTE ITEM NO. 7 .... GLASS SLIDES
         STATE ..... SOLID
         DENSITY ..... 160.00 LBS/CU. FT.
         ATTRIBUTES ..... GLASS
         ELEMENTS PRESENT .. SIG2
         COMPOSITION .....
                                        QUANTITY (LBS)
         GENERATION DATA ...
                  EXPT. TOTAL
                                          0.50
                 DAILY RATE
                                           0.00
                                          0.01
                  BATCH SIZE
         RECLAMATION ACTION .. WASH
**** WASTE ITEM NO. 8 .... SIX GUINEA PIGS
         STATE ..... SOLID
         DENSITY ..... 0.00 LBS/CU. FT.
         ATTRIBUTES .....
         ELEMENTS PRESENT ...
         COMPOSITION .....
                                        QUANTITY (LBS)
         GENERATION DATA ...
                  EXPT. TOTAL
                                           8.50
                  DAILY RATE
                                           0.00
                  BATCH SIZE
                                           0.20
         RECLAMATION ACTION .. BONES REMOVED
```

S/C SUBSYSTEM BIOMEDICAL RESEARCH (F)
GROUP KEY 3.5.1

**** WASTE SOURCE NO. 3 ... CALCIUM MOBILIZATION

DOCUMENT NO. 3.5.1.6.3

REMARKS (1) FOR OPERATIONAL DESCRIPTION SFE DOCUMENT NO.A-3.5.1.6.2

***** WASTE ITEM NO. 1 ISOTOPES

STATE LIQUID

DENSITY C.OO LBS/CU. FT.

ATTRIBUTES CHEMICAL

ELEPENTS PRESENT .. CA

COMPOSITION

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.00
DAILY RATE 0.00
BATCH SIZE 0.00

RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 2 CHEMICALS FOR SERUM PHOSPHATE CA & P

STATE SOLID, LIQUID

DENSITY 56.00 LBS/CU. FT.

ATTRIBUTES

ELEMENTS PRESENT ...

COMPOSITION TCA ALK. PHOSPHATASE SUBSTRATE OR PHOSPHA

TABS ALKALINE TABLET TCA

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 2.00
DAILY RATE 0.00
BATCH SIZE 0.04

RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 3 ... LITTER

STATE SOLID

DENSITY 43.00 LBS/CU. FT.

ATTRIBUTES ELEMENTS PRESENT ..

COMPOSITION

GENERATION DATA ... QUANTITY (LBS)

EXPI TOTAL 3.00
DAILY RATE 0.00
BATCH SIZE 0.07

```
S/C SUBSYSTEM .... BIOMEDICAL RESEARCH (F)
            ROUP KEY .... 3.5.1
** E JUIPMENT/EXPERIMENT NO. 6 ......MUSCULOSKELETAL
**** WASTE SOURCE NO. 3 .... CALCIUM MOBILIZATION
**** *** *** *** *** *** *** *** *** *** *** *** *** *** *** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** ** 
*** * ** WASTE ITEM NO. 4 .... WATER WASTE
                            STATE ..... LIGUID
                            DENSITY ..... 62.40 LBS/CU. FT.
                            ATTRIBUTES .....
                            ELEMENTS PRESENT ..
                            COMPOSITION ..... WATER
                                                                                                                               QUANTITY (LBS)
                            GENERATICY DATA ...
                                                        EXPT. TOTAL
                                                                                                                                       3.00
                                                        DAILY RATE
                                                                                                                                       0.00
                                                        BATCH SIZE
                                                                                                                                       0.07
                            RECLAMATION ACTION .. DISTILL OR N/R
**** WASTE ITEM NJ. 5 .... FOCD WASTE
                            STATE ..... SOLID
                            DENSITY ...... 95.00 LBS/CU. FT.
                             ATTRIBUTES ..... PARTICLE
                             ELEMENTS PRESENT ..
                             COMPOSITION ..... COHN
                             GENERATION DATA ...
                                                                                                                        - QUANTITY (LBS)
                                                         EXPT. FOTAL
                                                                                                                                       1.00
                                                                                                                                       0.00
                                                         DAILY RATE
                                                         BATCH SIZE
                                                                                                                                     0.02
                            RECLAMATION ACTION .. N/R
**** WASTE ITEM NO. 6 .... GLASS SLIDES
                             STATE ..... SOLID
                             DENSITY ...... 160.00 LBS/CU. FT.
                             ATTRIBUTES ..... GLASS
                             ELEMENTS PRESENT .. SIC2
                             COMPOSITION .....
                             GENERATION DATA ...
                                                                                                                               QUANTITY (LBS)
                                                         EXPT. TOTAL
                                                                                                                                      0.50
                                                         DAILY RATE
                                                                                                                                       0.00
                                                         BATCH SIZE
                                                                                                                                      0.01
```

RECLAMATION ACTION ... WASH

S/C SUBSYSTEM BIOMEDICAL RESEARCH (F) 3ROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 6MUSCULOSKELETAL **** WASTE SOURCE NO. 3 CALCIUM MOBILIZATION

***** WASTE ITEM NO. 7 FOUR LEGHORN CHICKENS

STATE SOLID

DENSITY 0.00 LBS/CU. FT.

ATTRIBUTES

ELEMENTS PRESENT ..

COMPOSITION DATA

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.00
DAILY RATE 0.00
BATCH SIZE 0.00

11/33/70

S/C SUBSYSTEM BIOMEDICAL RESEARCH (F) GROUP KEY 3.5.1

** E QUIPMENT/EXPERIMENT NO. 6MUSCULOSKELETAL *********************************

**** WASTE SOURCE NO. 4 ... MUSCLE MASS AND STRENGTH

DOCUMENT NO. 3.5.1.6.4

REFERENCE NO. 1 .. NASA EXPERIMENT DESCRIPTIONS FOR EXTENDE D APOLLO EARTH-ORBIT FLIGHTS, NASA HEADQU ARTERS, WASHINGTON, D.C., MARCH 1965.

REFERENCE NO. 2 .. REPT.ON THE OPTIMIZATION OF MANNED ORBIT AL RESEARCH LAB. (MORL) SYSTEM CONCEPT, PHA SE IIA, VOL. XXII & XXIII, EXPERIMENT PROGR AM DOUGLAS REPT. NOS. SM46083 & SM46084, SE

REFERENCE NO. 3 .. EXPERIMENT PROGRAM FOR EXTENDED EAPTH OR BITAL MISSIONS, REVISION NO.1, SEPTEMBER 1,1969, NASA DMSF.

***** WASTE ITEM NO. 1 BLOOD

STATE LIQUID

DENSITY 63.60 LBS/CU. FT.

ATTRIBUTES

ELEMENTS PRESENT ..

COMPOSITION WATER

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 2.00
DAILY RATE 0.00
BATCH SIZE 0.03

RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 2 URINE

STATE LIQUID

DENSITY 65.50 LBS/CU. FT.

ATTRIBUTES

ELEMENTS PRESENT ..

COMPOSITION WATER

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 50.00 DAILY RATE 0.00 BATCH SIZE 0.89

RECLAMATION ACTION .. DISTILL OR N/R

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```
S/C SUBSYSTEM .... BIOMEDICAL RESEARCH (F)
   3ROUP KEY .... 3.5.1
** EQUIPMENT/EXPERIMENT NO. 6 .....MUSCULOSKELETAL
**** WASTE SOURCE NO. 5 .... INDUCTION OF PRESSURE ATROPHY
         DOCUMENT NO. ..... 3.5.1.6.5
         REMARKS ( 1) ..... FOR OPERATIONAL DESCRIPTION SEE DOCUMENT
                           NO.A-3.5.1.6.2
**** WASTE ITEM NO. 1 .... ISCTOPES
         STATE ..... LIQUID
         DENSITY ..... C.OO LBS/CU. FT.
         ATTRIBUTES .... CHEMICAL
         ELEMENTS PRESENT ..
         COMPOSITION .....
         GENERATION DATA ...
                                       QUANTITY (LBS)
                  EXPT. TOTAL
                                           0.00
                  DAILY RATE
                                           0.00
                  BATCH SIZE
                                           0.00
         RECLAMATION ACTION .. N/R
***** WAS1E ITEM NO. 2 .... CHEMICALS FOR SERUM PHOSPHATE
         STATE ..... SOLID, LIQUID
         DENSITY ..... 56.00 LBS/CU. FT.
         ATTRIBUTES .....
         ELEMENTS PRESENT ..
         COMPOSITION ..... TCA ALK.PHOSPHATASE SUBSTRATE OR PHOSPHA
                           TABS ALKALINE TABLET
         GENERATION DATA ...
                                        QUANTITY (LBS)
                  EXPT. TOTAL
                                           2.00
                  DAILY RATE
                                           0.00
                  BATCH SIZE
                                           0.30
         RECLAMATION ACTION .. N/R
**** WASTE ITEM NO. 3 .... CA & P
         STATE ..... SOLID, LIQUID
         DENSITY ..... 56.00 LBS/CU. FT.
         ATTRIBUTES .....
         ELEMENTS PRESENT ..
         COMPOSITION ..... TCA, ALK. PHOSPHATASE SUBSTRATE, PHOSPHO
                           TABS ALKALINE TABLET
         CENERATION DATA ...
                                        QUANTITY (LBS)
                  EXPT. TOTAL
                                           2.00
                  DAILY RATE
                                           0.00
                  BATCH SIZE
                                           0.30
```

11/30/70

S/C SUBSYSTEM BIBMEDICAL RESEARCH (F) GROUP KEY 3.5.1 ** EQUIPMENT/FXPERIMENT NO. 6 MUSCULOSKELETAL *** WASTE SOURCE NO. 5 INDUCTION OF PRESSURE ATROPHY **** WASTE ITEM NO. 4 ... TISSUE FIXATIVES(ZENKERS) STATE LIQUID DENSITY 112.00 LBS/CU. FT. ATTRIBUTES ELEMENTS PRESENT .. K2CR207, HGCL2, CH3CCOH COMPOSITION GENERATION DATA ... QUANTITY (LBS) EXPT. TOTAL 0.50 DAILY RATE 0.00 BAICH SIZE 3.00 RECLAMATION ACTION .. COLLECT EXCESS * ** * * WASTE ITEM NO. 5 ... LITTER STATE SOLID DENSITY 43.00 LBS/CU. FT. ATTRIBUTES ELEMENTS PRESENT .. COMPOSITION QUANTITY (LBS) GENERATION DATA ... EXPT. TOTAL 3.00 DAILY RATE 0.00 BATCH SIZE 0.50 RECLAMATION ACTION .. N/R **** "ASTE ITEM NO. 6 WATER WASTE STATE LIQUID DENSITY 62.40 LBS/CU. FT. ATTRIBUTES ELFMENTS PRESENT .. CCMPOSITION WATER GENERATION DATA ... QUANTITY (LBS) EXPT. TOTAL 1.00

0.00

0.16

DAILY RATE

BATCH SIZE

RECLAMATION ACTION .. CISTILL OR N/R

```
S/C SUBSYSTEM .... BIOMEDICAL RESEARCH (F)
    GROUP KEY .... 3.5.1
** EQUIPMENT/EXPERIMENT NO. 6 ...... MUSCULOSKELETAL
**** WASTE SOURCE NO. 5 .... INDUCTION OF PRESSURE ATROPHY
***** WASTE ITEM NO. 7 .... FOOD WASTE
         STATE ..... SOLID
         DENSITY ..... 95.00 LBS/CU. FT.
         ATTRIBUTES ..... PARTICLES
         ELEMENTS PRESENT ..
         COMPOSITION ..... COHN
         GENERATION DATA ...
                                         QUANTITY (LBS)
                  EXPT. TOTAL DAILY RATE
                                           0.40
                                           0.00
                  BATCH SIZE
                                           0.06
         RECLAMATION ACTION .. N/R
***** WASTE LIEM NO. 8 .... GLASS SLIDES
         STATE ...... SOLID
         DENSITY ..... 160.00 LBS/CU. FT.
         ATTRIBUTES .... GLASS
         ELEMENTS PRESENT .. SIC2
         COMPOSITION .....
         GENERATION DATA ...
                                         QUANTITY (LBS)
                  EXPT. TOTAL
                                           0.50
                  DAILY RATE
                                           0.00
                  BATCH SIZE
                                           0.08
         RECLAMATION ACTION .. N/R
**** ** WASTE ITEM NO. 9 .... INSTRUMENTS
         STATE ..... SOLID
         DENSITY ..... 166.00 LBS/CU. FT.
         ATTRIBUTES ..... METAL, GLASS
         ELEMENTS PRESENT .. FEC, SIO2
         COMPOSITION .....
         GENERATION DATA ...
                                         QUANTITY (LBS)
                  EXPT. TOTAL
                                           5.00
                  DAILY RATE
                                           0.00
                  BATCH SIZE
                                           0.80
         RECLAMATION ACTION ..
```

S/C SUBSYSTEM BIOMEDICAL RESEARCH (F) SROUP KEY 3.5.1

***** WASTE ITEM AD. 10 3 CUINEA PIGS

STATE SOLID

DENSITY C.OO LBS/CU. FT.

ATTRIBUTES ELEMENTS PRESENT .. CCMPOSITION

GENERATICY DATA ... QUANTITY (LBS)

EXPT. TOTAL 4.50

DAILY RATE 0.00

BATCH SIZF 0.75

S/C SUBSYSTEM BIOMEDICAL RESEARCH (F) GROUP KEY 3.5.1

**** WASTE SOURCE NO. 6 ... ELECTROMYOGRAPHY AS AN INDEX OF DECONDITIONING .

DOCUMENT NO. 3.5.1.6.6

REMARKS (1) FCR OPERATIONAL DESCRIPTION SEE DOCUMENT NC.A-3.5.1.6.4

S/L SUBSYSTEM BIOMEDICAL RESEARCH (F) 3ROUP KEY 3.5.1

*** WASTE SOURCE NO. 7 SPECIMEM MASS MEASUREMENT

DOCUMENT NO. 3.5.1.6.7

REMARKS (1) /EXACT CONFIG.OF EQUIP.NOT FIXED NOR SPE CIFICSOF STUDY PROG/SPRING LOADED DEVICE CONTEMPLATED.CAPABLE ELECT.READOUT/NO C ONSUMABLES/EXPENPABLES OR WASTES LISTED S/C SUBSYSTEM BIOMEDICAL RESEARCH (G) SROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 7 ENDOCRINOLOGY

ASSOCIATED FPE NUMBER ... 5.13
S/C AREAS MEPICAL LABORATORY

**** WASTE SOURCE NO. 1 ENDOCTRINE FUNCTION AND STRESS PHYSIOLOG

DOCUMENT NO. 3.5.1.7.1

REFERENCE NO. 1 .. NASA EXPERIMENT DESCRIPTIONS FOR EXTENDE D APOLLO EARTH-ORBIT FLIGHTS, NASA HEADQ UARTERS, WASHINGTON, D.C., MARCH 1965.

REFERENCE NO. 2 .. REPORT ON THE OPTIMIZATION OF THE MANNED ORBITAL RESEARCH LAB. (MORL) SYSTEM COMC EPT, PHASE IIA, VOL.XXII, XXIII, EXP.PRCG., DOUGLAS REP. NOS. SM46063 & SM46084, SEP.1

REFERENCE NO. 3 .. EXPERIMENT PROGRAM FOR EXTENDED EARTH OR BITAL MISSIONS, REVISION NO. 1, SEPTEMBER 1, 1969, NASA OMSF.

***** WASTE ITEM NO. 1 BLCOD

STATE LIQUID

DENSITY 63.60 LBS/CU. FT.

ATTRIBUTES

ELEMENTS PRESENT ..

COMPOSITION WATER

GENERATION DAIA ... QUANTITY (LBS)
EXPT. TOTAL 2.00
DAILY RATE 0.00
BATCH SIZE 0.03

RECLAMATION ACTION .. N/R

**** WASTE ITEM NO. 2 URINE

STATE LIGUID

DENSITY 65.50 LBS/CU. FT.

ATTRIBUTES

ELEMENTS PRESENT ...

COMPOSITION WATER

GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 50.00

DAILY RATE 0.00
BA1CH SIZE 0.89

RECLAMATION ACTION .. DISTILL OR N/R

```
S/C SUBSYSTEM .... BIOMEDICAL RESEARCH (G)
   SROUP KEY .... 3.5.1
** EJUIPMENT/EXPERIMENT NO. 7 ..... ENDOCRINOLOGY
**** WASTE SOURCE NO. 1 .... ENDOCTRINE FUNCTION AND STRESS PHYSIOLOG
**** WASTE ITEM NO. 3 .... SYRINGE
         STATE ..... SOLID
        DENSITY ...... 160.00 LBS/CU. FT.
         ATTRIBUTES ..... GLASS TUBE
         ELEMENTS PRESENT .. SI . 02
        COMPOSITION .....
                                        QUANTITY (LBS)
         GENERATION DATA ...
                 EXPT. TOTAL DAILY RATE
                                          6.00
                                          0.00
                 BATCH SIZE
                                          0.10
         RECLAMATION ACTION .. WASH
**** WASTE ITEM NO. 4 ... NEEDLE
         STATE ..... SOLID
         DENSITY ..... 488.00 LBS/CU. FT.
         ATTRIBUTES ..... STEEL TUBE
         ELEMENTS PRESENT .. FE C
         CCMPOSITION .....
         GENERATION DATA ...
                                        QUANTITY (LBS)
                 EXPT. TOTAL
                                          0.40
                 DAILY RATE
                                          0.00
                 BATCH SIZE
                                          0.01
         RECLAMATION ACTION .. WASH
***** WASTE ITEM NO. 5 .... CHEMICALS FOR HORMONE ASSAYS
         STATE ..... LIQUID/SOLID
         DENSITY ..... 56.00 LBS/CU. FT.
         ATTRIBUTES .....
         ELEMENTS PRESENT ..
         COMPOSITION .... TBD
                                        QUANTITY (LBS)
         GENERATION DATA ...
                  EXPT. TOTAL
                                         10.00
                  DAILY RATE
                                          0.00
                  BATCH SIZE
                                          0.17
         RECLAMATION ACTION .. N/R
```

```
S/C SUBSYSTEM .... BIOMEDICAL RESEARCH (G)
   3ROUP KEY ..... 3.5.1
** EQUIPMENT/EXPERIMENT NO. 7 ....ENDOCRINOLOGY
**** WASTE SOURCE NO. 1 .... ENDOCTRINE FUNCTION AND STRESS PHYSIOLIC
                           Υ
**** WASTE ITEM NO. 6 ... GAUZE
         STATE .... SOLID
         DENSITY ..... 90.48 LBS/CU. FT.
         ATTRIBUTES ..... POROUS
         ELEMENTS PRESENT ...
         COMPOSITION ..... CELLULOSE
                                        QUANTITY (LBS)
         GENERATION DATA ...
                  EXPT. TOTAL
                                           0.60
                  DAILY RATE
                                           0.00
                  BATCH SIZE
                                           0.01
         RECLAMATION ACTION .. N/R
*** WASTE 11EM NO. 7 .... DATA SHEETS
         STATE ..... SOLID
         DENSITY ...... 72.00 LBS/CU. FT.
         ATTRIBUTES ..... SHEET
         ELEMENTS PRESENT ..
         COMPOSITION ..... CELLULOSE
         GENERATION DATA ...
                                        QUANTITY (LBS)
                  EXPT. TOTAL
                                           0.10
                                           0.00
                  DAILY RATE
                  BATCH SIZE
                                           0.00
         RECLAMATION ACTION .. N/R
***** WASTE ITEM NO. 8 .... CHEMICALS GAS ANALYSIS
         STATE ..... SOLID LIQUID
         DENSITY ..... 56.00 LBS/CU. FT.
         ATTRIBUTES .....
         ELEMENTS PRESENT .. K, O, H
         COMPOSITION ..... KPYROGALLATE, ETC.
                                        QUANTITY (LBS)
         GENERATION DATA ...
                  EXPT. TOTAL
                                           1.00
                  DAILY RATE
                                           0.00
                  BATCH SIZE
                                           0.01
         RECLAMATION ACTION .. N/R
```

```
S/C SUBSYSTEM .... BIOMEDICAL RESEARCH (G) SROUP KEY .... 3.5.1
```

** EQUIPMENT/EXPERIMENT NO. 7 ENDOCRINOLOGY

*** WASTE SOURCE NO. 1 ENDOCTRINE FUNCTION AND STRESS PHYSIOLOG

Y

**** *******************************

**** WASTE ITEM NO. 9 SPECIFIC ION ELECTRODES

STATE SOLID

DENSITY 166.00 LBS/CU. FT. ATTRIBUTES GLASS, CHEMICALS

ELEMENTS PRESENT .. HG

COMPOSITION CALOMEL ETC.

GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.30

DAILY RATE 0.00 BATCH SIZE 0.00

RECLAMATION ACTION .. REPAIR OR DISCARD

S/C SUBSYSTEM BIOMEDICAL RESEARCH (G) 3ROUP KEY 3.5.1

** E JUIPMENT/EXPERIMENT NO. 7ENDOCRINOLOGY

**** WASTE SOURCE NO. 2 TEMPERATURE REGULATION MECHANISMS

DOCUMENT NO. 3.5.1.7.2

REFERENCE NO. 1 .. EXPERIMENT PROGRAM FOR EXTENDED EARTH OR BITAL MISSIONS, REVISION NO. 1, SEPTEMBE R 1,1969, NASA OMSF.

REFERENCE NO. 2 .. EVEA PROGRAM REQUIREMENTS STUDY, FINAL R
EPCRT, NORTH AMERICAN ROCKWELL FEPORT NO.
SD-68-304-7, 1968.

REFERENCE NO. 3 .. S.P. VINOGRAD, MEDICAL ASPECTS OF AN ORB ITING RESEARCH LABORATORY, SPACE MEDICAL ADVISORY GROUP STUDY, NASA REPORT NO. SP -86, 1964.

**** WASTE ITEM NO. 1 BLOOD

STATE LIQUID

DENSITY `.... 63.60 LBS/CU. FT.

ATTRIBUTES

ELEMENTS PRESENT ...

COMPOSITION WATER

GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 2.00
DAILY RATE 0.00
BATCH SIZE 0.03

RECLAMATION ACTION .. N/R

**** WASTE ITEM NO. 2 SYRINGE

STATE SOLID

DENSITY 160.00 LBS/CU. FT.

ATTRIBUTES GLASS TUBE

ELEMENTS PRESENT .. SI,02

COMPOSITION

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 3.00
DAILY RATE 0.00
BATCH SIZE 0.05

RECLAMATION ACTION .. WASH

S/C SUBSYSTEM BIDMEDICAL RESEARCH (G) GROUP KEY 3.5.1 ** EQUIPMENT/EXPERIMENT NO. 7ENDOCRINOLOGY **** WASTE SOURCE NO. 2 TEMPERATURE REGULATION MECHANISMS ***** WASTE ITEM NO. 3 NEEDLE STATE SCLID DENSITY 488.00 LBS/CU. FT. ATTRIBUTES STEEL TUBE ELEMENTS PRESENT .. FE .C COMPOSITION GENERATION DATA ... QUANTITY (LBS) EXPT. TOTAL 0.10 DAILY RATE 0.00 BATCH SIZE 0.00 RECLAMATION ACTION .. WASH ***** WASTE ITEM NO. 4 CHEMICALS GAS ANALYSIS STATE LIQUID SOLID DENSITY 56.00 LBS/CU. FT. ATTRIBUTES ELEMENTS PRESENT .. K, C, H CCMPOSITION KPYROGALLATE GENERATION DATA ... QUANTITY (LBS) EXPT. TOTAL 1.00 DAILY RATE 0.00 BATCH SIZE 0.01 RECLAMATION ACTION .. N/R **** WASTE ITEM NO. 5 HORMONE ANALYSES STATE TBD DENSITY G.OO LBS/CU. FT. ATTRIBUTES TBD ELEMENTS PRESENT .. TBD COMPOSITION TBD GENERATION DATA ... QUANTITY (LBS) EXPT. TOTAL 2.00 DAILY RATE 0.00 BATCH SIZE 0.03

```
S/C SUBSYSTEM .... BIOMEDICAL RESEARCH (G)
    GROUP KEY .... 3.5.1
** EQUIPMENT/EXPERIMENT NO. 7 .....ENDOCRINOLOGY
**** WASTE SOURCE NO. 2 .... TEMPERATURE REGULATION MECHANISMS
**** WASTE ITEM NO. 6 ... PBI REACTANTS
         STATE ..... SOLID LIQUID
         DENSITY ..... 56.00 LBS/CU. FT.
         ATTRIBUTES .....
         ELEMENTS PRESENT ..
         COMPOSITION ..... 2NSO4, KOH, 1H2SO4, AS203H2PO3, CA(GH)4
         GENERATION DATA ...
                                         QUANTITY (LBS)
                  EXPT. YOTAL
                                           2.00
                                            0.00
                  DAILY RATE
                  BATCH SIZE
                                           0.03
         RECLAMATION ACTION .. A/R
**** WASTE ITEM NO. 7 .... GAUZE
         STATE ..... SOLID
         DENSITY ...... 90.48 LBS/CU. FT.
         ATTRIBUTES .... POROUS
         ELEMENTS PRESENT ...
         COMPOSITION ..... CELLULOSE
                                         QUANTITY'(LBS)
          GENERATION DATA ...
                  EXPT. TOTAL
                                            0.30
                   DAILY RATE
                                            0.00
                   BATCH SIZE
                                            0.00
         RECLAMATION ACTION .. N/R
 **** WASTE ITEM NO. 8 ... DATA SHEETS
          STATE ..... SOLID
          DENSITY ..... 72.00 LBS/CU. FT.
          ATTRIBUTES ..... SHEETS
          ELEMENTS PRESENT ..
          COMPOSITION ..... CELLULOSE
          GENERATION DATA ...
                                         QUANTITY (LBS)
                   EXPT. TOTAL
                                            0.50
                                            0.00
                   DAILY RATE
                   BATCH SIZE
                                            0.01
          RECLAMATION ACTION .. N/R
```

S/C SUBSYSTEM BIOMEDICAL RESEARCH (G) SPCUP KEY 3.5.1

**** WASTE ITEM NO. 9 TEST TUBES

STATE SOLID

DENSITY 160.00 LBS/CU. FT.

ATTRIBUTES GLASS ELEMENTS PRESENT .. SI,02

COMPOSITION

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 3.00 DAILY RATE 0.00 BATCH SIZE 0.05

S/C SUBSYSTEM BIOMEDICAL RESEARCH (G) SROUP KEY 3.5.1

**** WASTE SOURCE NO. 3 ADRENAL AND PARATHYROID FUNCTION IN RATS

DOCUMENT NO. 3.5.1.7.3

REFERENCE NO. 1 .. REPORT ON THE OPTIMIZATION OF THE MANNED ORBITAL RESEARCH LAB. (MORL) SYSTEM CONC EPT, PHASE IIA, VOL. XXII, XXIII, EXP. PROG., DOUGLASS REP. NOS. SM46083 & SM46084, SEP.

REFERENCE NO. 2 .. EXPERIMENT PROGRAM FOR EXTENDED EARTH OR BITAL MISSIONS, REVISION NO. 1, SEPTEMBE R 1, 1969, NASA OMSF.

REFERENCE NO. 3 .. REPORT ON THE DEVEL. OF THE MANNED GRBIT AL RESEARCH LAB. (MORL) SYST-UTILIZATION POTENTIAL. TASK AREA 1 ANAL. GF SPACE REL ATED OBJECT., BK 2 DOUGLAS REP. SM48808, S

***** WASTE ITEM NO. 1 CHEMICALS FOR SPECIFIC FORMONE ASSAYS

STATE LIQUID

DENSITY 70.00 LBS/CU. FT.

ATTRIBUTES CHEMICAL

ELEMENTS PRESENT .. TBD

COMPOSITION

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.00
DAILY RATE 0.00
BATCH SIZE 0.00

RECLAMATION ACTION .. N/R

**** WASTE ITEM NO. 2 URINE

STATE LIQUID

DENSITY 63.00 LBS/CU. FT.

ATTRIBUTES

ELEMENTS PRESENT ..

COMPOSITION WATER

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 25.00
DAILY RATE 0.00
BATCH SIZE 0.40

```
S/C SUBSYSTEM .... BIOMEDICAL RESEARCH (G)
     3ROUP KEY .... 3,5.1
 ** E JUIPMENT/EXPERIMENT NO. 7 .....ENDOCRINOLOGY
 *** WASTE SOURCE NO. 3 .... ADRENAL AND PARATHYROID FUNCTION IN RATS
 **** WASTE ITEM NO. 3 ... TISSUE FIXATIVES (ZENKERS)
          STATE ..... LIQUID
          DENSITY ...... 112.00 LBS/CU. FT.
          ATTRIBUTES .....
          ELEMENTS PRESENT ..
          COMPOSITION ..... K2CR207-HGCL2-CH3COOH
          GENERATION DATA ...
                                         QUANTITY (LBS)
                   EXPT. TOTAL
                                           0.00
                   DAILY RATE
                                            0.00
                                           0.00
                   BATCH SIZE
          RECLAMATION ACTION .. COLLECT
Y **** WASTE ITEN NO. 4 .... LITTER
          STATE .... SOLID
          DENSITY ..... 43.00 LBS/CU. FT.
          ATTRIBUTES .....
          ELFMENTS PRESENT ..
          COMPOSITION .....
          GENERATION DATA ...
                                       QUANTITY (LBS)
                                           6.00
                   EXPT. TOTAL
                   DAILY RATE
                                            0.00
                   BATCH SIZE
                                           0.11
          RECLAMATION ACTION .. N/R
 ***** WASTE ITEM NO. 5 ... WATER WASTE
          STATE ..... LIQUID
          DENSITY ........ 62.40 LBS/CU. FT.
          ATTRIBUTES .....
          ELEMENTS PRESENT ..
          COMPOSITION ..... WATER
                                         QUANTITY (LBS)
          GENERATION DATA ...
                   EXPT. TOTAL
                                           10.00
```

0.00

DAILY RATE

BATCH SIZE

RECLAMATION ACTION .. DISTILL OR N/R

S/C SUBSYSTEM SIOMEDICAL RESEARCH (G) 3RDUP KEY 3.5.1 ** EQUIPMENT/EXPERIMENT NO. 7ENDOCRINOLOGY **** WASTE SOURCE NO. 3 ADRENAL AND PARATHYROID FUNCTION IN RATS ***** WASTE ITEM NO. 6 FOOD WASTE STATE SOLID DENSITY 95.00 LBS/CU. FT. ATTRIBUTES PARTICLES ELEMENTS PRESENT .. COO, HON-COMPOSITION GENERATION DATA ... QUANTITY (LBS) EXPT. TOTAL 5.00 DAILY RATE 0.00 BATCH SIZE 0.10 RECLAMATION ACTION .. N/R ***** WASTE ITEM NO. 7 GLASS SLIDES STATE SOLID DENSITY 160.00 LBS/CU. FT. ATTRIBUTES GLASS ELEMENTS PRESENT .. SI,02 COMPOSITION GENERATION DATA ... QUANTITY (LBS) EXPT. TOTAL 0.50 DAILY RATE 0.00 BATCH SIZE 0.01 RECLAMATION ACTION .. WASH **** WASTE ITEM NO. 8 STAINS STATE LIQUID DENSITY 70.00 LBS/CU. FT. ATTRIBUTES DYE **ELEMENTS PRESENT** ... COMPOSITION C16H14O6-3H2O C2OH8BR4O5 GENERATION DATA ... QUANTITY (LBS) EXPT. TOTAL DAILY RATE 5,00 0.00

0.10

BATCH SIZE

RECLAMATION ACTION .. COLLECT EXCESS

```
S/C SUBSYSTEM .... BIOMEDICAL RESEARCH (G) GROUP KEY .... 3.5.1
```

**** WASTE ITEM NO. 9 SIX ALBINO RATS

STATE SOLID

DENSITY 0.00 LBS/CU. FT.

ATTRIBUTES ELEMENTS PRESENT ..

COMPOSITION

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 2.70 DAILY RATE 0.00 BATCH SIZE 0.00

RECLAMATION ACTION ...

```
S/C SUBSYSTEM .... BIOMEDICAL RESEARCH (G) JROUP KEY .... 3.5.1
```

*** WASTE SOURCE NO. 4 GONAD HISTOPATHOLOGY

DOCUMENT NO. 3.5.1.7.4

REFERENCE NO. 1 .. REPORT ON THE OPTIMIZATION OF THE MARKED ORBITAL RESEARCH LAB. (MORL) SYSTEM COME EPT, PHASE IIA, VOL. XXII, XXIII, EXP. PLOG. DOUGLASS REP. NOS. SM46083 & SM46084. SEP

REFERENCE NO. 2 .. EXPERIMENT PROGRAM FOR EXTENDED EARTH CR BITAL MISSIONS, REVISION NO. 1, SEPTEMPE R 1, 1969, NASA OMSF.

***** WASTE ITEM NO.- L ... TISSUE FIXATIVES (ZENKERS)

STATE LIQUID

DENSITY 112.00 LBS/CU. FT.

AFTRIBUTES

ELEMENTS PRESENT ..

COMPOSITION K2CR2O7-HGCL2-CH3COOP

GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 2.00

DAILY RATE 0.00

BATCH SIZE 0.04

RECLAMATION ACTION .. COLLECT EXCESS

***** WASTE ITEM NO. 2 LITTER

STATE SOLID

DENSITY 43.00 LBS/CU. FT.

ATTRIBUTES

ELEMENTS PRESENT ..

CCMPOSITION

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 6.00
DAILY RATE 0.00
BATCH SIZE 0.10

```
S/C SUBSYSTEM .... BIOMEDICAL RESEARCH (G)
   GROUP KEY .... 3.5.1
** EQUIPMENT/EXPERIMENT NO. 7 ..... ENDOCRINGLOGY
**** WASTE SOURCE NO. 4 .... GONAD HISTOPATHOLOGY
*** ** WASTE ITEM NO. 3 ... WATER WASTES
         STATE ..... LIQUID
        DENSITY ..... 62.40 LBS/CU. FT.
        ATTRIBUTES ......
        ELEMENTS PRESENT ..
        COMPOSITION .... WATER
        GENERATION DATA ...
                                        QUANTITY (LBS)
                 EXPT. TOTAL
                                         10.00
                 DAILY RATE
                                          0.00
                 BATCH SIZE
                                          0.20
        RECLAMATION ACTION .. DISTILL OR N/R
**** WASTE ITEM NO. 4 .... FOOD WASTE
         STATE ..... SOLID
         DENSITY ..... 95.00 LBS/CU. FT.
         ATTRIBUTES .... PARTICLES
         ELEMENTS PRESENT .. C.C.H.N
        COMPOSITION .....
         GENERATION DATA ...
                                        QUANTITY (LBS)
                 EXPT. TOTAL
                                          5.00
                 DAILY RATE
                                          0.00
                 BATCH SIZE
                                          0.09
        RECLAMATION ACTION .. N/R
***** WASTE ITEM NO. 5 .... GLASS SLIDES
         STATE ..... SOLID
         DENSITY ...... 160.00 LBS/CU. FT.
         ATTRIBUTES ..... GLASS
         ELEMENTS PRESENT .. SI + 02
         COMPOSITION .....
         GENERATION DATA ...
                                        QUANTITY (LBS)
                  EXPT. TOTAL .
                                          0.50
```

0.00

0.01

DAILY RATE

BATCH SIZE

S/C SUBSYSTEM BIOMEDICAL RESEARCH (G) GROUP KEY 3.5.1

**** WASTE ITEM NO. 6 SIX ALBINO RAIS

STATE SOLID

DENSITY 0.00 LBS/CU. FT.

ATTRIBUTES ELEMENTS PRESENT ..

COMPOSITION

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 2.70 DAILY RATE 0.00 BATCH SIZE 0.00

```
S/C SUBSYSTEM .... BIOMEDICAL RESEARCH (H)
   GROUP KEY .... 3.5.1
** E JUIPMENT/EXPERIMENT NO. 8 ..... HEMATOLOGY
         ASSOCIATED FPE NUMBER ... 5.13
         S/C AREAS ..... MECICAL LABORATORY
**** WASTE SOURCE NO. 1 .... LEUKOCYTE REPLICATION
         DOCUMENT NO. ..... 3.5.1.8.1
         REFERENCE NO. 1 .. EXPERIMENT PROGRAM FOR EXTENDED EARTH OR
                           BITAL MISSIONS, REVISION NO. 1, SEPTEMPE
                           R 1, 1969, NASA DMSF.
* *** ** WASTE ITEM NO. 1 .... COLOR FILM
         STATE ..... SOLID
         DENSITY ..... 83.00 LBS/CU. FT.
         ATTRIBUTES ..... PLASTIC, STRIP
         ELEMENTS PRESENT ..
         COMPOSITION ..... ACLAR
         GENERATION DATA ...
                                         QUANTITY (LBS)
                  EXPT. TOTAL
                                            0.50
                  DAILY RATE
                                            0.00
                  BATCH SIZE
                                            0.01
         RECLAMATION ACTION .. N/R
**** WASTE ITEM NO. 2 .... GLASS SLIDES
         STATE ..... SOLID
         DENSITY ..... 160.00 LBS/CU. FT.
         ATTRIBUTES ..... GLASS
         ELEMENTS PRESENT ...
         COMPOSITION ..... SIC2
                                         QUANTITY (LBS)
         GENERATION DATA ...
                  EXPT. TOTAL
                                            0.20
                  DAILY RATE
                                            0.00
                                            0.00
                  BATCH SIZE
         RECLAMATION ACTION .. WASH
**** ** WASTE IIEM NO. 3 .... BLCOD
         STATE ..... LIQUID
         DENSITY ..... 65.52 LBS/CU. FT.
         ATTRIBUTES ..... ORGANIC
         ELEMENTS PRESENT ..
         COMPOSITION ..... BLGOD
                                         QUANTITY (LBS)
         GENERATION DATA ...
                                           1.00
                  EXPT. TOTAL
                  DAILY RATE
                                            0.00
                  BATCH SIZE
                                            0.03
         RECLAMATION ACTION .. N/R
```

S/C SUBSYSTEM BIOMEDICAL RESEARCH (H) SROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 8HEMATOLOGY **** WASTE SOURCE NO. 1 LEUKOCYTE PEPLICATION

***** WASTE ITEM NO. 4 CHEMICALS- STAIN
STATE SOLID

DENSITY 70.00 LBS/CU. FT. ATTRIBUTES 1N SOLUTION, STAINS

ELEMENTS PRESENT ..

COMPOSITION METHYLENE BLUE, EOSIN

GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 1.00

DAILY RATE 0.00
BATCH SIZE 0.03

RECLAMATION ACTION .. N/R

**** WASTE ITEM NO. 5 TEST TUBES

STATE SOLID

DENSITY 16C.00 LBS/CU. FT.

ATTRIBUTES GLASS

ELEMENTS PRESENT ..

COMPOSITION SIC2

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 3.00
DAILY RATE 0.00
BATCH SIZE 0.07

S/C SUBSYSTEM BIOMEDICAL RESEARCH (H) SROUP KEY 3.5.1

**** WASTE SOURCE NO. 2 BLOOD CELL DYNAMICS - ERYTHROCYTE

DOCUMENT NO. 3.5.1.8.2

REFERENCE NO. 1 .. NATIONAL MULTIPURPOSE SPACE STATION, NAS A MSC DECEMBER 1964.

REFERENCE NO. 2 .. MEDICAL ASPECTS OF AN ORBITING RESEARCH LABORATORY, NASA SPACE MEDICINE ADVISORY GROUP, NASA REPORT NO.SP-86, 1966.

REFERENCE NO. 3 .. EXPERIMENT PROGRAM FOR EXTENDED EARTH OP BITAL MISSIONS, REVISION NO. 1, NASA OMS F, SEPTEMBER 1, 1969.

*** ** WASTE ITEM NO. 1 ... MICROSCOPIC SLIDES

STATE SOLID

DENSITY 175.00 LBS/CU. Fl.

ATTRIBUTES NON R/A, GLASS

ELEMENTS PRESENT ...

CCMPUSITION SIC2

GENFRATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 4.50
DAILY RATE 0.00
BATCH SIZE 0.01

RECLAMATION ACTION .. WASH

***** WASTE ITEM NO. 2 ... MICROSCOPIC SLIDES

STATE SOLID

DENSITY 175.00 LBS/CU. FT.

ATTRIBUTES R/A, GLASS

ELFMENTS PRESENT ..

CEMPOSITION SIC2

CENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.50 DAILY RATE 0.00 SATCH SIZE 0.01

PECLAMATION ACTION .. NUNF

```
S/C SUBSYSTEM .... BIOMEDICAL RESEARCH (H)
    GROUP KEY .... 3.5.1
** EQUIPMENT/EXPERIMENT NO. 8 .....HEMATOLOGY
**** WASTE SOURCE NO. 2 .... BLOOD CELL DYNAMICS - ERYTHROCYTE
*****************
 **** ** WASTE ITEM NO. 3 .... CYTOLOGY STAIN
          STATE ..... SOLID
          DENSITY ..... 62.00 LBS/CU. FT.
          ATTRIBUTES ..... STAINS, INSOLUTION
          ELEMENTS PRESENT ..
          COMPOSITION ..... METHYLENE BLUE, EOSIN
          GENERATION DATA ...
                                          QUANTITY (LBS)
                   EXPT. TOTAL
                                             3.00
                   DAILY RATE
                                             0.00
                   BATCH SIZE
                                             0.00
          RECLAMATICN ACTION .. NONE
***** WASTE ITEM NO. 4- ... FILM PAPER
          STATE ..... SOLID
          DENSITY ..... 2C.00 LBS/CU. FT.
          ATTRIBUTES ..... INERT
          ELEMENTS PRESENT .. C, F, O
          COMPOSITION .....
                                          QUANTITY (LBS)
          GENERATION DATA ...
                   EXPT. TOTAL
                                             3.00
                   DAILY RATE
                                             0.00
                   BATCH SIZE
                                             0.00
          RECLAMATION ACTION .. NONE
 **** ** WASTE ITEM NO. 5 .... CONTAINER
          STATE ..... SOLID
          DENSITY ...... 175.00 LBS/CU. FT.
          ATTRIBUTES ..... GLASS, R/A
          ELEMENTS PRESENT ..
          COMPOSITION ..... SIG2
          GENERATION DATA ...
                                          QUANTITY (LBS)
                   EXPT. TOTAL
                                             2.00
                   DAILY RATE
                                             0.00
                   BATCH SIZE
                                             0.00
```

RECLAMATION ACTION .. R/A DECAY, WASH

```
S/C SUBSYSTEM .... BIOMEDICAL RESEARCH (H)
   3ROUP KEY .... 3.5.1
** EQUIPMENT/EXPERIMENT NO. 8 .....HEMATOLOGY
**** WASTE SOURCE NO. 2 .... BLCOD CELL DYNAMICS - ERYTHROCYTE
****** WASTE ITEM NO. 6 .... RADIOACTIVE ISOTOPES
         STATE ..... LIGUID
         DENSITY ..... 62.00 LBS/CU. FT.
         ATTRIBUTES .... R/A
         ELEMENTS PRESENT ..
         COMPOSITION ..... NAIL31 - NA2CR5104
         GENERATION DATA ...
                                         QUANTITY (LBS)
                  EXPT. TOTAL DAILY RATE
                                           0.00
                                           0.00
                  BATCH SIZE
                                           0.00
         RECLAMATION ACTION .. NONE
***** WASTE ITEM NO. 7 .... SYRINGE
         STATE ..... SOLID
         DENSITY ....... 160.00 LBS/CU. FT.
         ATTRIBUTES ..... GLASS, TUBE
         ELEMENTS PRESENT ..
         COMPOSITION ..... SIQ2
                                         QUANTITY (LBS)
         GENERATION DATA ...
                  EXPT. TOTAL
                                           5.00
                  DAILY RATE
                                           0.00
                  BATCH SIZE
                                           0.00
         RECLAMATION ACTION .. WASH
***** WASTE ITEM NO. 8 .... NEEDLE
         STATE ..... SOLID
         DENSITY ..... 488.00 LBS/CU. FT.
         ATTRIBUTES ..... STEEL, TUBE
         ELEMENTS PRESENT ..
         COMPOSITION ..... FEC
                                         QUANTITY (LBS)
         GENERATION DATA ...
                  EXPT. TOTAL
                                           0.30
                                           0.00
                  DAILY RATE
                  BATCH SIZE
                                           0.00
         RECLAMATION ACTION .. WASH
```

S/C SUBSYSTEM BIOMEDICAL RESEARCH (H) 3ROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 8HEMATOLOGY

**** WASTE SOURCE NO. 2 BLOOD CELL DYNAMICS - ERYTHROCYTE

***** WASTE ITEM NO. 9 CAPILLARY TUBES

STATE SOLID

DENSITY 16C.00 LBS/CU. FT.

ATTRIBUTES GLASS, TUBE

ELEMENTS PRESENT ..

COMPOSITION SIC2

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.20
DAILY RATE 0.00
BATCH SIZE 0.00

RECLAMATION ACTION .. NONE

***** WASTE ITEM NO. 10 BLOOD

STATE LIQUID

DENSITY 65.00 LBS/CU. FT.

ATTRIBUTES ORGANIC

ELEMENTS PRESENT ...

COMPOSITION BLOOD

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 1.20
DAILY RATE 0.00
BATCH SIZF 0.01

11/3)/70 RUN NO. ** 2 **

S/C SUBSYSTEM BIOMEDICAL RESEARCH (H) SROUP KEY 3.5.1

**** WASTE SOURCE NO. 3 LEUKOCYTE DYNAMICS

DOCUMENT NO. 3.5.1.8.3

REMARKS (1) FOR OPERATIONAL DESCRIPTION SEE DOCUMENT NO. A- 3.5.1.8.2

***** WASTE ITEM NO. 1 COLOR FILM

STATE SOLID

DENSITY 83.00 LBS/CU. FT.

ATTRIBUTES PLASTIC, STRIP

ELEMENTS PRESENT ..

COMPOSITION ACLAR, AGI

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.50
DAILY RATE 0.00
BATCH SIZE 0.01

RECLAMATION ACTION .. N/R

*** ** WASTE ITEM NO. 2 GLASS SLIDES

STATE SOLID

DENSITY 160.00 LBS/CU. FT.

ATTRIBUTES GLASS

ELEMENTS PRESENT ...

COMPOSITION SIC2

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.30 DAILY RATE 0.00 BATCH SIZE 0.01

RECLAMATION ACTION .. WASH

**** WASTE ITEM NO. 3 BLCOD

STATE LIQUID

DENSITY 65.52 LBS/CU. FT.

ATTRIBUTES ORGANIC

ELEMENTS PRESENT ..

COMPOSITION BLOOD

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.50 DAILY RATE 0.00 BATCH SIZE 0.01

```
S/C SUBSYSTEM .... BIOMEDICAL RESEARCH (H)
   GROUP KEY .... 3.5.1
** EQUIPMENT/EXPERIMENT NO. 8 .....HEMATOLOGY
*** WASTE SOURCE NO. 3 .... LEUKCCYTE DYNAMICS
**** * WASTE ITEM NO. 4 ... CHEMICALS - STAIN
         STATE ..... SOLID
         DENSITY ..... 70.00 LBS/CU. FT.
         ATTRIBUTES ..... IN SOLUTION, STAINS
         ELEMENTS PRESENT ..
         CCMPOSITION ..... METHYLENE BLUE, EDSIN
         GENERATION DATA ...
                                        QUANTITY (LBS)
                  EXPT. TOTAL
                                           1.00
                  DAILY RATE
                                           0.00
                  BATCH SIZE
                                           0.03
         RECLAMATION ACTION .. N/R
**** WASTE ITEM NO. 5 .... CAPILLARY TUBES
         STATE ..... SOLID
         DENSITY ...... 160.00 LBS/CU. FT.
         ATTRIBUTES ..... GLASS, TUBES
         ELEMENTS PRESENT ..
         COMPOSITION ..... SIQ2
         GENERATION DATA ...
                                        QUANTITY (LBS)
                  EXPT. TOTAL
                                           0.20
                  DAILY RATE
                                           0.00
                  BATCH SIZE
                                           0.00
         RECLAMATION ACTION .. WASH
***** WASTE ITEM NO. 6 .... TEST TUBES
         STATE ..... SOLID
         DENSITY ...... 16C.00 LBS/CU. FT.
         ATTRIBUTES ..... GLASS, TUBES
         ELEMENTS PRESENT ..
         CCMPOSITION ..... SIC2
         GENERATION DATA ...
                                        QUANTITY (LBS)
                  EXPT. TOTAL
                                           3.00
                  DAILY RATE
                                           0.00
                  BATCH SIZE
                                           0.07
         RECLAMATION ACTION ..
```

S/C SUBSYSTEM BIOMEDICAL RESEARCH (H) SROUP KEY 3.5.1

**** WASTE SOURCE NO. 4 PLATELET DYNAMICS

DOCUMENT NO. 3.5.1.8.4

REMARKS (1) FOR OPERATIONAL DESCRIPTION SEE DOCUMENT NC. A- 3.5.1.8.2

***** WASTE ITEM NO. 1 COLOR FILM

STATE SOLID

DENSITY 83.00 LBS/CU. FT.

ATTRIBUTES PLASTIC, STRIP

ELEMENTS PRESENT ..

CCMPOSITION ACLAR AGI

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.30 DAILY RATE 0.00 BATCH SIZE 0.01

RECLAMATION ACTION .. N/R

**** HASTE ITEM NO. 2 GLASS SLIDES

STATE SOLID

DENSITY 160.00 LBS/CU. FT.

ATTRIBUTES GLASS

ELEMENTS PRESENT ..

COMPOSITION SIG2

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.30
DAILY RATE 0.00
BATCH SIZE 0.01

RECLAMATION ACTION .. WASH

***** WASTE ITEM NO. 3 BLOOD

STATE LIQUID

DENSITY 65.52 LBS/CU. FT.

ATTRIBUTES ORGANIG

ELEMENTS PRESENT ..

COMPOSITION BLOOD

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.50
DAILY RATE 0.00
BATCH SIZE 0.01

S/C SUBSYSTEM BIOMEDICAL RESEARCH (H) GROUP- KEY 3.5.1 ** EQUIPMENT/EXPERIMENT NO. 8 HEMATOLOGY **** WASTE SOURCE NO. 4 ... PLATELET DYNAMICS ***** WASTE ITEM NO. 4 CHEMICALS - STAIN STATE SOLID DENSITY 70.00 LBS/CU. FT. ATTRIBUTES IN SOLUTION, STAINS ELEMENTS PRESENT .. COMPOSITION METHYLENE BLUE, EOSIN GENERATION DATA ... QUANTITY (LBS) EXPT. TOTAL 1.00 DAILY RATE 0.00 BATCH SIZE 0.03 RECLAMATION ACTION .. N/R **** WASTE ITEM NO. - 5 CAPILLARY TUBES STATE SOLID DENSITY 16C.00 LBS/CU. FT. ATTRIBUTES GLASS, TUBE ELEMENTS PRESENT .. COMPOSITION SIG2 GENERATION DATA ... QUANTITY (LBS) EXPT. TOTAL 0.20 DAILY RATE 0.00 BATCH SIZE 0.00 RECLAMATION ACTION .. WASH ... **** WASTE ITEM NO. 6 ... TEST TUBES STATE SOLID DENSITY 160.00 LBS/CU. FT. ATTRIBUTES GLASS TUBES ELEMENTS PRESENT ... CCMPOSITION SIC2 GENERATION DATA ... QUANTITY (LBS) EXPT. TOTAL . 3.00 DAILY RATE 0.00 BATCH SIZE 0.07 RECLAMATION ACTION .. WASH

S/C SUBSYSTEM BIOMEDICAL RESEARCH (H) GROUP KEY 3.5.1

**** WASTE SOURCE NO. 5 LEUKOCYTE MOBILIZATION IN MICE AFTER CHE MICAL CHALLENGE

DOCUMENT NO. 3.5.1.8.5

REFERENCE NO. 1 .. THE OPTIMIZATION OF THE MANNED ORRITAL L
AB.(MORL)SYSTEM CONCEPT, PHASE IIA, VOL.X
XII & XXIII, EXPERIMENT PROGRAM. COUGLAS
REPORT NOS.SM46083 AND SM46084 SEPT. 196

REFERENCE NO. 2 .. EXPERIMENT PROGRAM FOR EXTENDED EARTH OR BITAL MISSIONS, REVISION NO. 1, SEPTEMBE R 1, 1969, NASA OMSF.

REFERENCE NO. 3 .. THE DEVELOPMENT OF THE MORL SYSTEM UTILI ZATIONPOTENTIAL. TASK AREA 1 ANALYSIS OF SPACE RELATED OBJECTIVES, BOOK 2 DOUGLA S REPORT NO. SM48808, SEPTEMBER 1965.

0.02

***** WASTE ITEM NO. 1 BLOOD

STATE LIQUID

DENSITY 63.60 LBS/CU. FT.

ATTRIBUTES ORGANIG

ELEMENTS PRESENT ...

COMPOSITION BLOOD

GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.20
DAILY RATE 0.00

BATCH SIZE

***** WASTE ITEM NO. 2 SYRINGE

STATE SOLID

RECLAMATION ACTION .. N/R

DENSITY 160.00 LBS/CU. FT.

ATTRIBUTES GLASS, TUBES

ELEMENTS PRESENT ...

COMPOSITION SIO2

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 2.00
DAILY RATE 0.00
BATCH SIZE 0.16

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S/C SUBSYSTEM .... IOMEDICAL RESEARCH (H)
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3ROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 8HEMATOLOGY

***** WASTE SOURCE NO. 5 LEUKOCYTE MOBILIZATION IN MICE AFTER CHE

MICAL CHALLENGE

***** WASTE ITEM NO. 3 NEEDLE STATE SOLID

DENSITY 488.00 LBS/CU. FT.

ATTRIBUTES STEEL, TUBE

ELEMENTS PRESENT ...

COMPOSITION FEC

GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.07

DAILY RATE 0.00 BATCH SIZE 0.00

RECLAMATION ACTION .. WASH

**** WASTE ITEM NO. 4 ... CHEMICALS - STAIN

STATE SOLID

DENSITY 56.00 LBS/CU. FT. ATTRIBUTES IN SOLUTION, STAINS

ELEMENTS PRESENT ...

COMPOSITION METHYLENE BLUE, EOSIN

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.05
DAILY RATE 0.00
BATCH SIZE 0.00

RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 5 LITTER

STATE SOLID

DENSITY 3.00 LBS/CU. FT.

ATTRIBUTES

COMPOSITION

COMPOSITION

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 1.00
DAILY RATE 0.00
BATCH SIZE 0.08

```
S/C SUBSYSTEM .... BIOMEDICAL RESEARCH (H)
   ROUP KEY .... 3.5.1
** EQUÎPMENT/EXPERIMENT NO. 8 .....HEMATOLOGY
**** WASTE SOURCE NO. 5 .... LEUKOCYTE MOBILIZATION IN MICE AFTER CHE
                          MICAL CHALLENGE
*x**** WASTE ITEM NO. 6 .... FILM
         STATE ..... SOLID
         DENSITY ..... 83.00 LBS/CU. FT.
         ATTRIBUTES ..... PLASTIC, STRIP
         ELEMENTS PRESENT ...
        COMPOSITION ..... ACLAR AGI -
                                        QUANTITY (LBS)
         GENERATION DATA
                 EXPT. TOTAL
                                          0.30
                 DAILY RATE
                                          0.00
                                          0.02
                 BATCH SIZE
         RECLAMATION ACTION .. N/R
**** WASTE ITEM NO._ 7 .... GAUTE
         STATE ..... SOLID
         DENSITY ..... 9C.48 LBS/CU. FT.
         ATTRIBUTES .... POROUS
         ELEMENTS PRESENT ..
         COMPOSITION ..... CELLULOSE
                                        QUANTITY (LBS)
         GENERATION DATA ...
                                          1.00
                 EXPT. TOTAL:
                  DAILY RATE
                                          0.00
                                          0.08
                  BATCH SIZE
         RECLAMATION ACTION .. N/R
**** WASTE ITEM NO. 8 .... DATA SHEETS
         STATE ..... SOLID
         DENSITY ..... 72.00 LBS/CU. FT.
         ATTRIBUTES .... SHEET
         ELEMENTS PRESENT ..
         COMPOSITION .....
                                        QUANTITY (LBS)
         GENERATION DATA ...
                  EXPT. TOTAL
                                           0.10
                  DAILY RATE
                                           0.00
                                          0.01
                  BATCH SIZE
```

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S/C SUBSYSTEM .... BIOMEDICAL RESEARCH (H)
   3ROUP KEY .... 3.5.1
** EQUIPMENT/EXPERIMENT NO. 8 .....HEMATOLOGY
**** WASTE SOURCE NO. 5 ... LEUKOCYTE MOBILIZATION IN MICE AFTER CHE
                          MICAL CHALLENGE
**** WASTE ITEM NO. 9 .... FOOD WASTE
         STATE ..... SOLID
         DENSITY ..... 96.00 LBS/CU. FT.
         ATTRIBUTES ..... PARTICLES
         ELEPENTS PRESENT .. C.H,O,N
        COMPOSITION .....
         GENERATION DATA ...
                                        QUANTITY (LBS)
                 EXPT. TOTAL
                                           0.05
                 DAILY RATE
                                           0.00
                 BATCH SIZE
                                          0.00
         RECLAMATION ACTION .. N/R
***** WASTE ITEM NO. 10 .... WATER WASTE
         STATE ..... LIQUID
         DENSITY ..... 62.40 LBS/CU. FT.
         ATTRIBUTES ......
         ELEMENTS PRESENT ..
         COMPOSITION ..... WATER
         GENERATION DATA ...
                                        QUANTITY (LBS)
                 EXPT. TOTAL
                                          0.15
                 DAILY RATE
                                           0.00
                                           0.01
                 BATCH SIZE
         RECLAMATION ACTION .. DISTILL
**** WASTE ITEM NO. 11 .... GLASS SLIDES
         STATE ..... SOLID
         DENSITY ...... 160.00 LBS/CU. FT.
         ATTRIBUTES ..... GLASS SHEET
         ELEMENTS PRESENT ..
         COMPOSITION ..... SIO2
         GENERATION DATA ...
                                        QUANTITY (LBS)
                  EXPT. TOTAL
                                           1.00
                  DAILY RATE
                                           00.0
                  BATCH SIZE
                                          0.08
         RECLAMATION ACTION .. WASH
```

11/30/70

S/C SUBSYSTEM BIOMEDICAL RESEARCH (H) SROUP KEY 3.5.1

** F JUIPMENT / EXPERIMENT NO. 8 HEMATOLOGY

*** * WASTE SOURCE NO. 5 LEUKOCYTE MOBILIZATION IN MICE AFTER CHF

M1 CAL CHALLENGE

**** WASTE ITEM NO. 12 4 ALBINO MICE

STATE SOLID

DENSITY 0.00 LBS/CU. Ff.

ATTRIBUTES

ELEMENIS PRESENT ..

CGMPOSITION LIVING ANIMALS

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.20
DAILY RATE 0.00
BATCH SIZE 0.00

S/C SUBSYSTEM BIOMEDICAL RESEARCH (H) SROUP KEY 3.5.1

** E QUIPMENT/EXPER IMENT NO. 8HEMATOLOGY

*** WASTE SOURCE NO. 6 MAXIMUM RATE OF ERYTHROCYTE PRODUCTION I N RATS

DOCUMENT NO. 3.5.1.8.6

REFERENCE NO. 1 .. THE OPTIMIZATION OF THE MANNED ORBITAL R
ESEARCH LAB(MORL)SYSTEM CONCEPT, PHASE I
IA, VOL. XXII, XXIII, EXPERIMENT PROGRAM. DOU
GLAS REPORT NOS. SM46083 , SM46C84 SEPT.

**** WASTE ITEM NO. 1 BLOOD

STATE LIQUID

DENSITY 63.60 LBS/CU. FT.

ATTRIBUTES DRGANIC

ELEMENTS PRESENT ..

COMPOSITION BLOCD

GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.20

DAILY RATE 0.00
BATCH SIZE 0.04

RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 2 SYRINGE

STATE SOLID

DENSITY 16C.00 LBS/CU. FT.

ATTRIBUTES GLASS, TUBE

ELEMENTS PRESENT ..

COMPOSITION SID2

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 2.00
DAILY RATE 0.00
BATCH SIZE 0.40

RECLAMATION ACTION .. WASH

**** WASTE ITEM NO. 3 NEEDLE

STATE SOLID

DENSITY 488.00 LBS/CU. FT.

ATTRIBUTES STEEL, TUBE

ELEMENTS PRESENT ..

CCMPOSITION FEC

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.07
DAILY RATE 0.00
BATCH SIZE 0.01

```
S/C SUBSYSTEM .... BIOMEDICAL RESEARCH [H]
   GROUP KEY .... 3.5.1
** FJU]PMENT/FXPERIMENT NO. 8 .....HEMATOLOGY
**** WASTE SOURCE NO. 6 ... MAXIMUM RATE OF ER/THROCYTE PRODUCTION I
                          N RATS
**** WASTE ITEM NO. 4 .... CHEMICALS - STAIN
         STATE ..... SOLID
        DENSITY ..... C.OO LBS/CU. FT.
         ATTRIBUTES .... STAINS, IN SOLUTION
         ELEMENTS PRESENT ...
        CCMPOSITION ..... PETHYLENE BLUE, EOSIN
         GENERATION DATA ...
                                        QUANTITY (LPS)
                  EXPT. TOTAL
                                           0.50
                  DAILY RATE
                                           0.00
                                           0.10
                  BATCH SIZE
        RECLAMATION ACTION .. N/R
**** WASTE ITEN NO. 5 .... R/A ISOTOPES
         STATE ..... LIQUID
         DENSITY ..... 70.00 LBS/CU. FT.
         ATTRIBUTES .... R/A
         ELEMENTS PRESENT .. CR51
         COMPOSITION .....
         GENERATIEN DATA ...
                                        QUANTITY (LBS)
                  EXPT. TOTAL
                                           0.50
                  DAILY RATE
                                           0.00
                  BATCH SIZE
                                           0.10
         RECLAMATION ACTION .. COLLECT
**** WASTE ITEM NO. 6 .... FILM
         STATE ..... SOLID
         DENSITY ...... 83.00 LBS/CU. FT.
         ATTRIBUTES ..... PLASTIC, STRIP
         ELEMENTS PRESENT ...
         COMPOSITION ..... ACLAR, SILVER EMULSICN
         GENERATION DATA ...
                                        QUANTITY (LBS)
                  EXPT. TOTAL
                                           0.30
                  DAILY RATE
                                           0.00
                  BATCH SIZE
                                           0.06
         RECLAMATION ACTION .. N/R
```

```
S/C SUBSYSTEM .... BIOMEDICAL RESEARCH (H)
   GROUP KEY .... 3.5.1
** EQUIPMENT/EXPERIMENT NO. 8 .....HEMATOLOGY
**** WASTE SOURCE NO. 6 ... MAXIMUM RATE OF ERYTHROCYTE PRODUCTION J
                           N RATS
**** WASTE ITEM NO. 7 .... GAUZE
         STATE ...... SOLID
         DENSITY ..... 90.48 LBS/CU. FT.
         ATTRIBUTES .... POROUS
         ELEMENTS PRESENT ...
         COMPOSITION ..... CELLULOSE
         GENERATION DATA ...
                                         QUANTITY (LBS)
                  EXPT. TOTAL DAILY RATE
                                           1.00
                                           0.00
                                           0.20
                  BATCH SIZE
         RECLAMATION ACTION .. N/R
**** WASTE ITEM NO. 8 .... DATA SHEETS
         STATE ..... SOLID
         DENSITY ...... 72.00 LBS/CU. FT.
         ATTRIBUTES ..... SHEET
         ELEMENTS PRESENT ...
         COMPOSITION ..... CELLULOSE
                                         QUANTITY (LBS)
         GENERATION DATA ...
                  EXPT. TOTAL
                                           0.10
                  DAILY RATE
                                           0.00
                  BATCH SIZE
                                           0.02
         RECLAMATION ACTION .. N/R
**** ** WASTE ITEM NO. 9 .... FOOD WASTE
         STATE ...... SOLID
         DENSITY ..... 96.00 LBS/CU. FT.
         ATTRIBUTES ..... PARTICLES
         ELEMENTS PRESENT .. C, H+O, N
         COMPOSITION .....
                                         QUANTITY (LBS)
         GENERATION DATA ...
                  EXPT. TOTAL
                                            0.20
                  DAILY RATE
                                            0.00
                  BATCH SIZE
                                           0.04
         RECLAMATION ACTION .. N/R
```

```
S/C SUBSYSTEM .... BIOMEDICAL RESEARCH (H)
   ROUP KEY .... 3.5.1
** EQUIPMENT/EXPERIMENT NO. 8 .....HEMATGLOGY
**** WASTE SOURCE NO. 6 ... MAXIMUM RATE OF ERYTHRUCYTE PRODUCTION I
                          N RATS
**** WASTE ITEM NO. 10 ... WATER WASTE
         STATE ..... LIGUID
         DENSITY ..... 62.40 LBS/CU. FT.
         ATTRIBUTES .....
         ELEMENIS PRESENT ..
         COMPOSITION ..... WATER
                                        QUANTITY (LBS)
         GENERATION DATA ...
                  EXPT. TOTAL
                                           0.60
                                           0.00
                  DAILY RATE
                  BATCH SIZE
                                           0.12
         RECLAPATION ACTION .. DISTILL
*** ** WASTE ITEM NO. 11 .... GLASS SLIDES
         STATE ..... SOLID
         DENSITY ....... 160.00 LBS/CU. Fl.
         ATTRIBUTES ...... GLASS, SHEET
         ELEMENTS PRESENT ...
         COMPOSITION ..... SIO2
                                        QUANTITY (LBS)
         GENERATION DATA ...
                  EXPT. TOTAL
                                           1.00
                  DAILY RATE
                                           0.00
                  BATCH SIZE
                                           0.20
         RECLAMATION ACTION .. WASH
*** ** WASTE ITEM NO. 12 .... CENTRIFUGE TUBES
         STATE ..... SCLID
         DENSITY ...... 160.00 LBS/CU. FT.
         ATTRIBUTES ..... GLASS, TUBES
         ELEPENTS PRESENT ..
         COMPOSITION ..... SIC2
                                        QUANTITY (LBS)
         GENERATION DATA ...
```

2.00

0.00

0.40

EXPT. TOTAL

DAILY RATE

BATCH SIZE

S/C SLBSYSTEM BIDMEDICAL RESEARCH (H) 3ROUP KEY 3.5.1

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** E JUIPMENT/EXPERIMENT NO. 8HEMATOLOGY

**** WASTE SOURCE NO. 6 MAXIMUM RATE OF ERYTHROCYTE PRODUCTION I

N RAIS

***** WASTE ITEM NO. 13 3 ALBINO MICE

STATE SOLID

DENSITY 0.00 LBS/CU. FT.

ATTRIBUTES

ELEMENTS PRESENT ..

COMPOSITION LIVING ANIMALS

GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.20

DAILY RATE 0.00 BATCH SIZE 0.00

RECLAMATION ACTION .. N/R

****** WASTE ITEM NO. 14 1 ALBINO MOUSE

STATE SOLID

DENSITY C.OO LBS/CU. FT.

ATTRIBUTES ANIMAL CARCASS

ELEMENTS PRESENT ..

COMPOSITION PROTEIN, MINERAL

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.00
DAILY RATE 0.00
BATCH SIZE 0.00

```
S/C SLBSYSTFM .... BIOMEDICAL RESEARCH (H)
GROUP KEY .... 3.5.1
```

**** WASTE SOURCE NO. 7 WOLND HEALING

DOCUMENT NO. 3.5.1.8.7

REFERENCE NO. 1 .. EXPERIMENT PROGRAM FOR EXTENDED FARTH OR , BITAL MISSIONS, REVISION NO. 1, SEPTEMBE R 1, 1969, NASA OMSF.

REFERENCE NO. 2 .. MEDICAL REQUIREMENTS IN SUPPORT OF LONG DURATION MANNED SPACE FLIGHT, BELLCOMM I NO. REPORT NO. TR 67-710-1, 1967

***** WASTE ITEM NO. 1 BLCOD
STATE LIQUID

DENSITY 63.60 LBS/CU. FT.

ATTRIBUTES ORGANIC

ELEMENTS PRESENT ..

COMPOSITION BLCOD

GENERATION DATA ... QUANTITY (LPS)
EXPT. TOTAL 0.10
DAILY RATE 0.00

BATCH SIZE 0.00

RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 2 SYRINGE

STATE SOLID

DENSITY 160.00 LBS/CU. FT.

ATTRIBUTES GLASS, TUBE

ELEMENTS PRESENT ..

COMPOSITION SIO2

GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 1.00
DAILY RATE 0.00

BATCH SIZE 0.02

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S/C SUBSYSTEM .... BIOMEDICAL-RESEARCH (H)
   ROUP KEY .... 3.5.1
** EQUIPMENT/EXPERIMENT NO. 8 .....HEMATOLOGY
*** WASTE SOURCE NO. 7 .... WELND HEALING
**** WASTE ITEM NO. 3 .... NEEDLE
         STATE ..... SOLID
        DENSITY ..... 488.00 LBS/CU. FT.
         ATTRIBUTES ..... STEEL, TUBE
         ELEMENTS PRESENT ..
         COMPOSITION ..... FEC
         GENERATION DATA ...
                                        QUANTITY (LBS)
                 EXPT. TOTAL
                                           0.05
                 DAILY RATE
                                           0.00
                  BATCH SIZE
                                           0.00
         RECLAMATION ACTION .. LASH
**** ** WASTE ITEM NO. 4 .... CHEMICALS FOR WBC COUNT
         STATE ..... LIQUID, SOLID
         DENSITY .... 62.00 LBS/CU. FT.
         ATTRIBUTES .....
         ELEMENTS PRESENT ..
         COMPOSITION ..... CH3COOH
                                        QUANTITY (LBS)
         GENERATION DATA ...
                 EXPT. TOTAL
                                           0.10
                 DAILY RATE
                                           0.00
                  BATCH SIZE
                                           0.00
         RECLAMATION ACTION .. N/R
**** ** WASTE ITEM NG. 5 .... LITTER
         STATE .... SOLID
         DENSITY ..... 43.00 LBS/CU. FT.
         ATTRIBUTES .....
         ELEMENTS PRESENT ..
         CCMPOSITION .....
                                        QUANTITY (LBS)
         GENFRATION DATA ...
                 EXPT. TOTAL DAILY RATE
                                           8.00
                                           0.00
```

0.20

BATCH SIZE

```
S/C SUBSYSTEM .... BIOMEDICAL RESEARCH (H)
   GROUP KEY .... 3.5.1
** FJUIPMENT/EXPERIMENT NO. 8 .....HEMATOLOGY
**** WASTE SOURCE NO. 7 .... WOUND HEALING
**** WASTE ITEM NO. 6 .... FILM
         STATE ..... SCLID
        DENSITY ..... 83.00 LBS/CU. FT.
         ATTRIBUTES ..... PLASTIC, STRIP
         ELEMENTS PRESENT ..
        COMPOSITION ..... ACLAR AGI
        GENERATION DATA ...
                                        QUANTITY (LBS)
                 EXPT. TOTAL
                                          0.30
                 DAILY RATE
                                          0.00
                                          0.00
                 SATCH SIZE
        RECLAMATION ACTION .. N/R
***** WASTE ITEM NO. 7 .... GAUZE
         STATE ..... SOLID
        DENSITY ..... 90.48 LBS/CU. FT.
        ATTRIBUTES ..... POROUS
         ELEMENTS PRESENT ..
        COMPOSITION ..... CELLULOSE
                                        QUANTITY (LBS)
         GENERATION DATA ...
                 EXPT. TOTAL
                                          0.10
                 DAILY RATE
                                          0.00
                 BATCH SIZE
                                          0.00
        RECLAMATION ACTION .. N/R
*+** WASTE ITEM NO. 8 .... DATA SHEETS
         STATE ..... SOLID
         DENSITY ..... 72.00 LBS/CU. FT.
         ATTRIBUTES ..... SHEET
         ELEMENTS PRESENT ...
        COMPOSITION ..... CELLULOSE
         GENERATION DATA ...
                                        QUANTITY (LBS)
                 EXPT. TOTAL
                                          1.00
                  DAILY RATE
                                          0.00
                  BATCH SIZE
                                          0.00
        RECLAMATION ACTION .. N/R
```

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S/C SUBSYSTEM .... BIOMEDICAL RESEARCH (H)
   3RDUP KEY .... 3.5.1
** FJUIPMENT/EXPERIMENT NO. 8 .....HEMATOLOGY
**** WASTE SOURCE NO. 7 ... WOUND HEALING'
*******************
***** WASTE ITEM NO. 9 .... FOCD WASTE
         STATE ..... SCLID
         DENSITY ..... 96.00 LBS/CU. FT.
         ATTRIPUTES ..... PARTICLES
         ELFMENTS PRESENT .. CohoOoN
         COMPOSITION .....
         GENERATION DATA ...
                                        QUANTITY (LBS)
                  EXPT. TOTAL
                                          16.00
                  DAILY RATE
                                           0.00
                  BATCH SIZE
                                           0.40
         RECLAMATION ACTION .. N/R
***** WASTE ITEM NO. 10 ... WATER WASTE
         STATE ..... LICUID
         DENSITY ..... 62.40 LBS/CU. FT.
         ATTRIBUTES .....
         FLEMENTS PRESENT ...
         CCMPOSITION ..... hATER
         GENERATION DATA ...
                                         QUANTITY (LBS)
                  EXPT. TOTAL
                                           12.00
                  DAILY RATE
                                           0.00
                  BATCH SIZE
                                           0.30
         RECLAMATION ACTION .. DISTILL
***** WASTE ITEM NO. 11 .... GLASS SLIDES
         STATE ..... SCLID
         DENSITY ...... 160.00 LBS/CU. FT.
         ATTRIBUTES ..... GLASS, SHEET
         ELEMENTS PRESENT ..
         COMPOSITION ..... SIC2
         GENERATION DATA ...
                                         QUANTITY (LBS)
                  EXPT. TOTAL
                                           0.10
                  DAILY RATE
                                           0.00
                  BATCH SIZE
                                           0.00
         RECLAMATION ACTION ..
```

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S/C SUBSYSTEM .... BIOMEDICAL RESEARCH (H)
   GROUP KEY .... 3.5.1
** FJUIPMENT/EXPERIMENT NO. 8 .....HEMATOLOGY
**** WASTE SOURCE NO. 7 .... WCUND HEALING
***** WASTE ITE 4 NO. 12 .... CHEMICALS - STAIN
        STATE ..... SOLID
        DENSITY ...... 62.00 LBS/CU. FT.
        ATTRIBUTES ..... IN SOLUTION, STAINS
        ELEMENTS PRESENT ..
        CCMPOSITION ..... METHYLENE BLUE, EOSIN
        GENERATION DATA ...
                                      QUANTITY (LBS)
                 LATET . TOTAL
                                         0.10
                 DAILY RATE
                                         0.00
                 BATCH SIZE
                                         0.00
        PECLAMATION ACTION .. COLLECT EXCESS
***** WASTE ITEM NO. 13 .... 6 MINIATURE SWINE
        STATE ..... SOLID
```

****** WASTE ITEM NO. 13 6 MINIATURE SWINE
STATE SOLID
DENSITY C.00 LBS/CU. FT.
ATTRIBUTES
ELEMENTS PRESENT ..
COMPOSITION
GENERATION DATA ...
UNANTITY (LBS)
EXPT. TOTAL
DAILY RATE
0.00
BATCH SIZE
0.00

RECLAMATION ACTION ...

S/C SUBSYSTEM BIOMEDICAL RESEARCH (H) 3ROUP KEY 3.5.1

**** WASTE SOURCE NO. 8 BLCOD CONGULATION AND HEMOSTATIC FUNCTION

DOCUMENT NO. 3.5.1.8.8

REFERENCE NO. 1 .. EXPERIMENT PROGRAM FOR EXTENDED EARTH OR BITAL MISSIONS, REVISION NO. 1, SEPTEMBE R 1, 1969, NASA DMSF.

REFERENCE NO. 2 .. S.P. VINOGRAD, MEDICAL ASPECTS OF AN ORB ITING RESEARCH LABORATORY, SPACE MEDICAL ADVISORY GROUP STUDY, NASA REPORT NO. S P-66. 1964

**** WASTE ITEM NO. 1 COLOR FILM

STATE SOLID

DENSITY 83.00 LRS/CU. FT.

ATTRIBUTES PLASTIC, STRIP

ELEMENTS PRESENT ..

COMPOSITION ACLAR

GENERATION DATA ... QUANTITY (LBS)
- EXPT. TOTAL - 0.50
DAILY RATE 0.00
BATCH SIZE 0.01

RECLAMATION .. N/R

**** WASTE ITEM NO. 2 GLASS SLIDES

STATE SCLID

DENSITY 16C.00 LBS/CU. FT.

ATTRIBUTES GLASS

ELEMENTS PRESENT ..

CCMPOSITION SIG2

GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.10

DAILY RATE 0.00
BATCH SIZE 0.00

S/C SUBSYSTEM BIOMEDICAL RESEARCH (H) GROUP KEY 3.5.1

、** EQUIPMENT/EXPERIMENT NO. 8HEMATOLOGY **** WASTE SOURCE NO. 8 ... BLOOD COAGULATION AND HEMOSTATIC FUNCTIO Ν

**** ** WASTE ITEM NO. 3 BLOOD STATE LIQUID

DENSITY 65.52 LBS/CU. FT.

ATTRIBUTES ORGANIC

ELEMENTS PRESENT .. COMPOSITION

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL DAILY RATE 2.00 0.00 0.05 BATCH SIZE

RECLAMATION ACTION .. N/R

**** WASTE ITEM NO. 4 ... CHEMICALS - STAIN

STATE SOLID

DENSITY 70.00 LBS/CU. FT. ATTRIBUTES IN SOLUTION, STAINS

ELEMENTS PRESENT ..

COMPOSITION METHYLENE BLUE, EOSIN

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.20 DAILY RATE 0.00 BATCH SIZE 0.00

RECLAMATION ACTION ...

***** WASTE ITEM NO. 5 TEST TUBES

STATE SOLID DENSITY 160.00 LBS/CU. FT.

ATTRIBUTES GLASS, TUBE

ELEMENTS PRESENT ..

COMPOSITION SIO2

QUANTITY (LBS) GENERATION DATA ...

EXPT. TOTAL 3.00 DAILY RATE 0.00 BATCH SIZE 0.07

RECLAMATION ACTION .. WASH

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S/C SUBSYSTEM .... BIOMEDICAL RESEARCH (H)
    GROUP KEY .... 3.5.1
** FJUIPMENT/EXPERIMENT NO. 8 .....HEMATOLOGY
**** WASTE SOURCE NO. 8 .... BLCOD COAGULATION AND HEMOSTATIC FUNCTIO
                         N
**** WASTE ITEM NO. 6 .... SYRINGE
         STATE ..... SCLID
        DENSITY ..... 16C.00 LBS/CU. FT.
         ATTRIBUTES .... GLASS
         ELEMENTS PRESENT ..
        COMPOSITION ..... SIC2
         GENERATION DATA ...
                                      QUANTITY (LBS)
                 EXPT. TOTAL
                                         2.00
                 DAILY RATE
                                         0.00
                 BATCH SIZE
                                         0.07
        RECLAMATION ACTION .. WASH
***** WASTE ITEM NO. 7 .... NEEDLES
         STATE ..... SOLID
         DENSITY ..... 488.00 LBS/CU. FT.
         ATTRIBUTES .... STEEL
```

QUANTITY (LBS)

0.10

0.00

0.00

ELEMENTS PRESENT ... COMPOSITION FEC GENERATION DATA ...

EXPT. TOTAL

DAILY RATE

BATCH SIZE

RECLAMATION ACTION .. WASH

11/30/70 S/C SUBSYSTEM BIOMEDICAL RESEARCH (H) GROUP KEY 3.5.1 ** EQUIPMENT/EXPERIMENT NO. 8HEMATOLOGY **** WASTE SOURCE NO. 9 CYTOGENIC STUDIES DOCUMENT NO. 3.5.1.8.9 REFERENCE NO. 1 .. IMBLMS ***** WASTE ITEM NO. 1 COLOR FILM STATE SOLID DENSITY 83.00 LBS/CU. FT. ATTRIBUTES PLASTIC, STRIP ELEMENTS PRESENT .. COMPOSITION ACLAR AGI GENERATION DATA ... QUANTITY (LBS) EXPT. TOTAL 0.50 DAILY RATE 0.00 BATCH SIZE 0.01 RECLAMATION ACTION .. ***** WASTE ITEM NO. 2 GLASS SLIDES STATE SOLID DENSITY 160.00 LBS/CU. FT. ATTRIBUTES GLASS ELEMENTS PRESENT .. COMPOSITION SIO2 GENERATION DATA ... QUANTITY (LBS) EXPT. TOTAL 0.10 DAILY RATE 0.00 BATCH SIZE 0.00 RECLAMATION ACTION .. WASH **** WASTE ITEM NO. 3 ... BLOOD STATE LIQUID DENSITY 65.52 LBS/CU. FT.

ATTRIBUTES ORGANIC

ELEMENTS PRESENT ..

COMPOSITION BLOOD

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.10 DAILY RATE 0.00 BATCH SIZE 0.00

```
S/C SUBSYSTEM .... BIOMEDICAL RESEARCH (H)
   GROUP KEY .... 3.5.1
** FJUIPMENT/FXPERITENT NO. 8 .....HEMATOLOGY
**** WASTE SOURCE NO. 9 .... CYTGGENIC STUDIES
**** ** WASTE ITEM NO. 4 ... CHEMICALS - STAIN
         STATE ..... SCLID
         DENSITY ..... 70.00 LBS/CU. FT.
         ATTRIBUTES ..... IN SOLUTION
         ELEMENTS PRESENT ..
         COMPOSITION ..... METHYLENE BLUE, FOSIK
         GENERATION DATA ...
                                        QUANTITY (LBS)
                  EXPT. TOTAL
                                           0.20
                  DAILY RATE
                                           0.00
                  BATCH SIZE
                                           0.00
        PECLAMATION ACTION .. N/R
 *** WASTE ITEM NO. 5 .... TEST TUBES
         STATE ..... 30LID
         DENSITY ..... 160.00 LBS/CU. FT.
         ATTRIBUTES .... GLASS
         ELEMENTS PRESENT ..
         COMPOSITION ..... SIC2
         GENERATION DATA ...
                                        QUANTITY (LBS)
                  EXPT. TOTAL
                                           3.00
                DAILY RATE
                                           0.00
                  BATCH SIZE
                                           0.07
         RECLAMATION ACTION .. WASH
**** WASTE ITEM NO. 6 .... SYRINGE
         STATE ..... SCLID
         DENSITY ..... 160.00 LBS/CU. FT.
         ATTRIBUTES ..... GLASS
         ELEMENTS PRESENT ..
         CUMPOSITION ..... SIC2
         GENERATION DATA ...
                                        QUANTITY (LBS)
                  EXPT. TOTAL
                                           2.00
                  DAILY RATE
                                           0.00
                  BATCH SIZE
                                           0.05
        RECLAMATION ACTION ...
```

S/C SUBSYSTEM BIGMEDICAL RESEARCH (H) 3ROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 8HEMATOLOGY
**** WASTE SOURCE NO. 9 CYTOGENIC STUDIES

***** WASTE ITEM NO. 7 NEEDLES

STATE SOLID

DENSITY 488.00 LBS/CU. FT.

ATTRIBUTES STEEL

ELFMENTS PRESENT ..

COMPOSITION FEC

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.10
DAILY RATE 0.00
BATCH SIZE 0.00

RECLAMATION ACTION .. WASH

```
S/C SUBSYSTEM .... BIOMEDICAL RESEARCH (H)
    GROUP KEY .... 3.5.1
** EQUIPMENT/EXPERIMENT NO. 8 .....HEMATOLOGY
**** WASTE SOURCE NO. 10 .... BLOOD VOLUME AND RED CELL LIFE SPAN
         DOCUMENT NO. ..... 3.5.1.8.10
         REFERENCE NO. 1 .. IMBLMS
**** WASTE ITEM NO. 1 ... BLCOD
         STATE ..... LIQUID
         DENSITY ..... 63.60 LBS/CU. FT.
         ATTRIBUTES ..... ORGANIC
         ELEMENTS PRESENT ..
         COMPOSITION ..... BLOOD
         GENERATION DATA ...
                                        QUANTITY (LBS)
                  EXPT. TOTAL
                                          1.50
                  DAILY RATE
                                          0.00
                  BATCH SIZE
                                           0.25
         RECLAMATION ACTION .. N/R
***** WASTE ITEM NO. Z .... SYRINGE
         STATE .... SOLID
         DENSITY ...... 16C.00 LBS/CU. FT.
         ATTRIBUTES ..... GLASS, TUBE
         ELEMENTS PRESENT ..
         COMPOSITION ..... SIC2
         GENERATION DATA ...
                                        QUANTITY (LBS)
                  EXPT. TOTAL
                                           2.00
                  DAILY RATE
                                           0.00
                  BATCH SIZE
                                           0.30
         RECLAMATION ACTION .. WASH
**** WASTE ITEM NO. 3 ... NEEDLE
         STATE ..... SOLID
         DENSITY ..... 488.00 LBS/CU. FT.
         ATTRIBUTES ..... STEEL, TUBE
         ELEMENTS PRESENT ..
         COMPOSITION ..... FEC
         GENERATION DATA ...
                                        QUANTITY (LBS)
                  EXPT. TOTAL
                                           0.10
                  DAILY RATE
                                           0.00
                  BATCH SIZE
                                           0.02
         RECLAMATION ACTION .. WASH
```

S/C SUBSYSTEM BIOMEDICAL RESEARCH (H) 3ROUP KEY 3.5.1

** E JUIPMENT/FXPERIMENT NO. 8HEMATOLOGY

**** WASTE SOURCE NO. 10 BLCOD VOLUME AND RED CELL LIFE SPAN

***** WASTE ITEM NO. 4 CHEMICALS, R/A ISOTOPES STATE LIQUID, SOLID

DENSITY 250.00 LBS/CU. FT.

ATTRIBUTES R/A

ELEMFNTS PRESENT ...

COMPOSITION DFF32

GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.10
DAILY RATE 0.00
BATCH SIZE 0.02

RECLAMATION ACTION .. N/R

**** ** WASTE ITEM NO. 5 ... PLANCHET

STATE SOLID

DENSITY 168.00 LBS/CU. FT.

ATTRIBUTES AL COMPOSITION AL

GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.10
DAILY RATE 0.00

BATCH SIZE 0.02

RECLAMATION ACTION ... N/R

**** WASTE ITEM NO. 6 ... LANCET

-STATE SOLID

DENSITY 488.00 LBS/CU. FT.

ATTRIBUTES
ELEMENTS PRESENT ...
CCMPDSITION FEC

GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.20

DAILY RATE 0.00
BATCH SIZE 0.03

S/C SUBSYSTEM BIOMEDICAL RESEARCH (H) 3ROUP KEY 3.5.1 ** EQUIPMENT/EXPERIMENT NO. 8HEMATOLOGY **** WASTE SOURCE NO. 10 BLCCD VOLUME AND RED CELL LIFE SPAN **** WASTE ITEM NO. 7 GAUZE STATE SOLID DENSITY 90.48 LBS/CU. FT. ATTRIBUTES POROUS ELEMENTS PRESENT .. COMPOSITION CELLULOSE GENERATION DATA ... QUANTITY (LBS) EXPT. TOTAL 0.10 DAILY RATE 0.00 BATCH SIZE 0.02 RECLAMATION ACTION .. N/R ***** WASTE ITEM NO. 8 CAPILLARY TUBES STATE SOLID DENSITY 160.00 LBS/CU. FT. ATTRIBUTES GLASS, TUBE ELEMENTS PRESENT ... COMPOSITION SIO2 GENERATION DATA ... QUANTITY (LBS) EXPT. TOTAL 0.25 DAILY RATE 0.00 BATCH SIZE 0.04

RECLAMATION ACTION ...

```
S/C SUBSYSTEM .... BIOMEDICAL RESEARCH (I)
   3ROUP KEY .... 3.5.1
.
** EQUIPMENT/EXPERIMENT NO. 9 ..... MICROBIOLOGY AND IMMUNOLOGY
         ASSOCIATED FPE NUMBER ... 5.13
         S/C AREAS ..... MICROBIOLOGY LABORATORY
                          MEDICAL LABORATORY
**** WASTE SOURCE NO. 1 .... MICROBIOLOGICAL EVALUATION OF SURFACES
         DOCUMENT NO. ..... 3.5.1.9.1
A PLATES AIREGULAR ... A PLATES AIREGULAR
         STATE ..... SOLID
         DENSITY ..... 34.50 LBS/CU. FT.
         ATTRIBUTES ..... GEL CONTAMINATED
         ELEMENTS PRESENT ..
         COMPOSITION ..... PCLYSTYRENE, ORGANIC
         GENERATION DATA ...
                                        QUANTITY (LBS)
                  EXPT. TOTAL
                                         234.00
                  DAILY RATE
                                          0.00
                  BATCH SIZE
                                           4.50
         RECLAMATION ACTION .. N/R
****** WASTE ITEM NO. 2 ... MEDIA IN PLATES B)RODAC
         STATE ..... SOLID
         DENSITY ..... 43.37 LBS/CU. FT.
         ATTRIBUTES ..... GEL CONTAMINATED
         ELEMENTS PRESENT ..
         CCMPOSITION ..... POLYSTYRENE, ORGANIC
         GENERATION DATA ...
                                       QUANTITY (LBS)
                  EXPT. TOTAL
                                         208.00
                  DAILY RATE
                                          0.00
                  BATCH SIZE
                                          4.00
         RECLAMATION ACTION .. N/R
***** WASTE ITEM NO. 3 .... MEDIA IN TUBES
         STATE ..... SCLID
         DENSITY ..... 86.40 LBS/CU. FT.
         ATTRIBUTES ..... GFL CONTAMINATED
         FLEMENTS PRESENT ..
         COMPOSITION ..... POLYSTYRENE, ORGANIC
         GENERATION DATA ...
                                       QUANTITY (LBS)
                  EXPT. TOTAL
                                          32.84
                  DAILY RATE
                                           0.00
                  BATCH SIZE
                                           0.67
        KECLAMATION ACTION .. N/R
```

S/C SUBSYSTEM BIOMEDICAL RESEARCH (I) GROUP KEY 3.5.1 ** E JUIPMENT/EXPERIMENT NO. 9MICROBIOLOGY AND IMMUNOLOGY **** WASTE SOURCE NO. 1 MICROBIOLOGICAL EVALUATION OF SURFACES ***** WASTE ITEM NO. 4 ... SYRINGES STATE SCLID DENSITY 35.60 LBS/CU. FT. ATTRIBUTES PLASTIC CONTAMINATED ELEMENTS PRESENT .. COMPOSITION POLYSTYRENE, ORGANIC GENERATION DATA ... QUANTITY (LBS) EXPT. TOTAL 1.56 DAILY RATE 0.00 BATCH SIZE 0.30 RECLAMATION ACTION .. STERILIZE **** WASTE ITEM NO. 5 SWABS STATE SOLID DENSITY C.30 LBS/CU. FT. ATTRIBUTES WGCD CCNTAMINATED ELEMENTS PRESENT .. COMPOSITION WOCD AND CA ALGINATE QUANTITY (LBS) GENERATION DATA EXPT. TOTAL 0.31 DAILY RATE 0.00 BATCH SIZE 0.06 RECLAMATION ACTION .. N/R **** WASTE ITEM NO. 6 LOOPS STATE SOLID DENSITY 1.70 LBS/CU. FT. ATTRIBUTES PLASTIC CONTAMINATED FLEMENTS PRESENT .. COMPOSITION POLYSTYRENE QUANTITY (LBS) GENERATION DATA ... EXPT. TOTAL 0.14 DAILY RATE 0.00 102.00 BATCH SIZE RECLAMATION ACTION .. STERILIZE

0.01

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S/C SUBSYSTEM .... BIOMEDICAL RESEARCH (I)
   3ROUP KEY .... 3.5.1
** EQUIPMENT/EXPERIMENT NO. 9 .....MICROBIOLOGY AND IMMUNOLOGY
**** WASTE SOURCE NO. 1 ... MICROBIOLOGICAL EVALUATION OF SURFACES
***** WASTE ITEM NO. 7 ... STAINING PAPER
         STATE ..... SOLID
        DENSITY .....
                          C.30 LBS/CU. FT.
         ATTRIBUTES ..... PAPER CONTAMINATED
         ELEMENTS PRESENT ..
         COMPOSITION ..... CELLULOSE
         GENERATION DATA ...
                                       QUANTITY (LBS)
                 EXPT. TOTAL
                                          0.14
                 DAILY RATE
                                          0.00
                 BATCH SIZE
                                          0.02
        RECLAMATION ACTION .. N/R
**** WASTE ITEM NO. 8 .... SLIDES
         STATE ..... SOLID
         DENSITY ....... 190.80 LBS/CU. FT.
         ATTRIBUTES ..... GLASS CONTAMINATED
         ELEMENTS PRESENT ..
         COMPOSITION ..... BOROSILICATES
         GENERATION DATA ...
                                       QUANTITY (LBS)
                 EXPT. TOTAL
                                          0.52
                 DAILY RATE
                                          0.00
```

BATCH SIZE

RECLAMATION ACTION .. STERILIZE

COMPOSITION OIL AND CELLULOSE

***** WASTE ITEM NO. 9 IMPERSION OIL AND LENS PAPER

GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.31
DAILY RATE 0.00
BATCH SIZE 0.06

RECLAMATION ACTION .. N/R

STATE SOLID

S/C SUBSYSTEM BIOMEDICAL RESEARCH (I) 3ROUP KEY 3.5.1 ** EQUIPMENT/EXPERIMENT NO. 9MICROBIOLOGY AND IMMUNOLOGY **** WASTE SGURCE NO. 1 MICROBIOLOGICAL EVALUATION OF SURFACES **** WASTE ITEM NO. 10 BACTERICIDE STATE SOLID DENSITY 5.40 LBS/CU. FT. ATTRIBUTES GEL CONTAMINATION ELEMENTS PRESENT ... COMPOSITION 17% ZEPHIRAN AND AGAR GENERATION DATA ... QUANTITY (LBS) EXPT. TOTAL 24.00 DAILY RATE 0.00 BATCH SIZE 2.00 RECLAMATION ACTION .. N/R ***** WASTE ITEM NO. 11 AUTOCLAVE WASTE WATER STATE VAPOR DENSITY 60.00 LBS/CU. FT. ATTRIBUTES STEAM 250 DEG. F ELEMENTS PRESENT .. COMPOSITION WATER AND IMPURITIES GENERATION DATA ... QUANTITY (LBS) EXPT. TOTAL 183.00 DAILY RATE 0.50 BATCH SIZE 0.00

RECLAMATION ACTION .. CONDENSE.STRAIN

****** WASTE ITEM NO. 12 PACKAGING MATERIAL
STATE SOLID

DENSITY C.08 LBS/CU. FT.
ATTRIBUTES PLASTIC CONTAMINATED
CLEMENTS PRESENT ..
COMPOSITION POLYETHYLENE
GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 13.00
DATLY RATE 0.00
BATCH SIZE 0.25

RECLAMATION ACTION .. REUSE AS IS

S/C SUBSYSTEM BIOMEDICAL RESEARCH (1) GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 9MICROBIOLOGY AND IMMUNOLOGY **** WASTE SOURCE NO. 1 MICROBIOLOGICAL EVALUATION OF SURFACES *********************

***** WASTE ITEM NO. 13 ... DEFECTIVE MICROSCOPE LAMP

STATE SOLID

DENSITY 86.40 LBS/CU. FT.

ATTRIBUTES GLASS DEFECTIVE

ELEMENTS PRESENT ..

COMPOSITION BORO SILICATES

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.06
DAILY RATE 0.00
BATCH SIZE 0.02

RECLAMATION ACTION .. N/R

****** WASTE ITEM NO. 14 CIL BOTTLE AND DROPPER

STATE SOLID

DENSITY C.OO LBS/CU. FT.

ATTRIBUTES GLASS EMPTY

ELEMENTS PRESENT ..

COMPOSITION BORD SILICATES

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.15
DAILY RATE 0.00
BATCH SIZE 0.05

S/C SUBSYSTEM BIOMEDICAL RESEARCH (I) SROUP KEY 3.5.1

**** WASIF SOURCE NO. 2 MICROBIAL PROFILES OF CREW MEMBERS

DOCUMENT NO. 3.5.1.9.2

REFERENCE NO. 1 .. EXPERIMENT PROGRAM FOR EXTENDED EARTH OR BITAL MISSIONS, REVISION NO. 1, NASA OMS F. SEPTEMBER 1, 1969.

REFERENCE NO. 2 .. BBL MANUAL OF PRODUCTS AND LABORATORY PR OCEDURES, 5TH EDITION, 1969, RHODE, PAUL A., ED. (BBL)

**** WASTE ITEM NO. 1 MECTA IN PLATES A) REGULAR (154/WEEK)

STATE SOLID

DENSITY 34.50 LBS/CU. FT. ATTRIBUTES GEL CONTAMINATED

ELEMENTS PRESENT ...

COMPOSITION DRGANIC AND POLYSTYRENE

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 754.00
DAILY RATE 0.00
BATCH SIZE 14.50

RECLAMATION ACTION .. NONE

*** ** WASTE ITEM NO. 2 ... MECIA IN PLATES B)RODAC

STATE SCLID

DENSITY 43.37 LBS/CU. FT. ATTPIBUTES GFL CONTAMINATED

ELEMENTS PRESENT ..

COMPOSITION CREANIC AND POLYSTYRENE

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 46.80
DAILY RATE 0.00
BATCH SIZE 0.90

```
S/C SUBSYSTEM .... BIOMEDICAL RESEARCH (I)
   3ROUP KEY .... 3.5.1
** EQUIPMENT/FXPERIMENT NO. 9 .....MICROBIOLOGY AND IMMUNOLOGY
**** WASTE SOURCE NO. 2 .... MICROBIAL PROFILES OF CREW MEMBERS
***** WASTE ITEM NO. 3 .... TUBED MEDIA A) LIQUID (48/WEEK)
         STATE ..... SOLID
        DENSITY ..... 86.40 LBS/CU. FT.
         ATTRIBUTES ..... GEL CONTAMINATED
         ELEMENTS PRESENT ..
        COMPOSITION ..... ORGANIC AND POLYSTYRENE
         GENERATION DATA ...
                                        QUANTITY (LBS)
                 EXPT. TOTAL
                                         62.40
                  DAILY RATE
                                          0.00
                 BATCH SIZE
                                          1.20
        RECLAMATION ACTION .. NONE
***** WASTE ITEM NO. 4 .... TUBED MEDIA B) SOLID (108/WEEK)
         STATE ..... SOLID
        DENSITY ..... 86.40 LBS/CU. FT.
         ATTRIBUTES ..... GEL CONTAMINATED
         ELEMENTS PRESENT ..
        COMPOSITION ..... ORGANIC AND POLYSTYRENE
         GENERATION DATA ...
                                        QUANTITY (LBS)
                 EXPT. TOTAL
                                         140.40
                 DAILY RATE
                                          0.00
                 BATCH SIZE
                                          2.70
        RECLAMATION ACTION .. NONE
**** WASTE ITEM NO. 5 .... TONGUE DEPRESSORS (6/WEEK)
         STATE .... SOLID
        DENSITY ..... 0.30 LBS/CU. FT.
         ATTRIBUTES ..... WOCD CONTAMINATED
        ELEMENTS PRESENT ..
        CCMPOSITION ..... WOOD
         GENERATION DATA ...
                                        QUANTITY (LBS)
                 EXPT. TOTAL
                                          0.78
                 DAILY RATE
                                          0.00
                 BATCH SIZE
                                          0.01
        RECLAMATION ACTION .. NONE
```

S/C SUBSYSTEM BIOMEDICAL RESEARCH (I) ROUP KEY 3.5.1 ** EQUIPMENT/EXPERIMENT NO. 9MICROBIOLOGY AND IMMUNCLOGY **** WASTE SOURCE NO. 2 MICROBIAL PROFILES OF CREW MEMBERS **** WASTE ITEM NO. 6 ... SWABS (32/WEEK) STATE SOLID DFNSITY C.30 LBS/CU. FT. ATTRIBUTES WOCD CONTAMINATED ELEVENTS PRESENT .. COMPOSITION WOCD CA ALGINATE GENERATION DATA ... QUANTITY (LBS) EXPT. TOTAL 4.16 DAILY RATE 0.00 BATCH SIZE 0.08 RECLAMATION ACTION .. NONE ***** WASTE ITEM NO. 7 ... SYRINGF (6/WEEK) STATE SOLID DENSITY 35.60 LBS/CU. FT. ATTRIBUTES PLASTIC CONTAMINATED ELEMENTS PRESENT .. COMPOSITION POLYSTYRENE GENERATION DATA ... QUANTITY (LBS) EXPT. TOTAL 41.60 DAILY RATE 0.00 BATCH SIZE 0.38 RECLAMATION ACTION .. NONE **** WASTE ITEM NO. 8 INNOCULATING LOOPS (54/WEEK) STATE SOLID DENSITY 1.70 LBS/CU. FT. ATTRIBUTES PLASTIC CONTAMINATED ELEMENTS PRESENT .. COMPOSITION POLYSTYRENE GENERATION DATA ... QUANTITY (LBS) EXP1. TOTAL 7.28 DAILY RATE 0.00

0.14

BATCH SIZE

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S/C SUBSYSTEM .... BIOMEDICAL RESEARCH (I)
    GROUP KEY .... 3.5.1
** F JUIPMENT/EXPERIMENT NO. 9 .....MICROBIOLOGY AND IMMUNOLOGY **** WASTE SOURCE NO. 2 .... MICROBIAL PROFILES OF CREW MEMBERS
***** WASTE ITEM NO. 9 .... INNOCULATING NEEDLES
         STATE ..... SOLID
         DENSITY ..... 1.70 LBS/CU. FT.
         ATTRIBUTES ..... PLASTIC CONTAMINATED
         ELEMENIS PRESENT ..
         COMPOSITION ..... POLYSTYRENE
         GENERATION DATA ...
                                           QUANTITY (LBS)
                   EXPT. TOTAL
                                             7.28
                   DAILY RATE
                                             0.00
                   BATCH SIZE
                                             0.14
         RECLAMATION ACTION .. NONE
***** WASTE ITEM NO. 10 .... EMPTY SENSITIVITY DISC CONTAINERS
         STATE ..... SOLID
         DENSITY ..... 1.70 LBS/CU. FT.
         ATTRIBUTES ..... PLASTIC CONTAMINATED
         ELEMENTS PRESENT ..
         COMPOSITION .... POLYSTYRENE
         GENERATION DATA ...
                                           QUANTITY (LBS)
                                            12.20
                   EXPT. TOTAL
                   DAILY RATE
                                             0.00
                   BATCH SIZE
                                             0.10
         RECLAMATION ACTION .. NONE
**** WASTE ITEM NO. 11 .... EMPTY DISC CONTAINERS
         STATE ..... SOLID
         DENSITY ..... 53.64 LBS/CU. FT.
         ATTRIBUTES ..... PLASTIC CONTAMINATED
         ELEMENTS PRESENT ..
         COMPOSITION ..... POLYSTYRENE
         GENERATION DATA ...
                                           QUANTITY (LBS)
                   EXPT. TOTAL
                                             0.67
                   DAILY RATE
                                              0.00
                   BATCH SIZE
                                              0.06
         RECLAMATION ACTION .. NONE
```

S/C SUBSYSTEM BIOMEDICAL RESEARCH (I) FROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 9MICROBIOLOGY AND IMMUNULOGY

*** WASTE SOURCE NO. 2 MICROBIAL PROFILES OF CREW MEMBERS

**** WASTE ITEM NO. 12 MICROSCOPE SLIDES

STATE SOLID

DENSITY 19C.80 LBS/CU. FT. ATTRIBUTES GLASS CONTAMINATED

ELEMENTS PRESENT ..

COMPOSITION BOROSILICATES

BATCH SIZE

GENFRATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 2.08
DAILY RATE 0.00

0.04

RECLAMATION ACTION .. NONE

**** ** WASTE ITEM NO. 13 STAINING PAPER

STATE SOLID

DENSITY C.30 LBS/CU. FT. ATTRIBUTES PAPER CONTAMINATED

ELEMENTS PRESENT ..

COMPOSITION CELLULOSE

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 3.12
DAILY RATE ... 0.00
BATCH SIZE 0.06

RECLAMATION ACTION .. NONE

*** WASTE ITEM NO. 14 FORCEPS

STATE SOLID

DENSITY 490.00 LBS/CU. FT. ATTRIBUTES METAL CONTAMINATED

ELEMENTS PRESENT ..

COMPOSITION STEEL

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.03
DAILY RATE 0.00
BATCH SI7E 0.03

RECLAMATION ACTION .. STERILIZE

S/C SUBSYSTEM BIOMEDICAL_RESEARCH (I) 3ROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 9MICROBIOLOGY AND IMMUNOLOGY

**** WASTE SOURCE NO. 2 MICROBIAL PPOFILES OF CREW MEMPERS

***** WASTE ITEM NO. 15 PACKAGING MATERIAL

STATE SCLID

DENSITY C.08 LBS/CU. FT.

ATTRIBUTES PLASTIC/PAPER CONTAMINATED

ELEMENTS PRESENT ..

COMPOSITION POLYVINYL, POLYFTHYLENE, AND CELLULOSE

GENFRATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 7.50
DAILY RATE 0.00
BATCH SIZE 0.15

11/30/70 RUN NO。 ** 2 六年 PAGE 526 S/C SUBSYSTEM BIOMEDICAL RESEARCH (I) \ GROUP KEY 3.5.1 ** EQUIPMENT/EXPERIMENT NO. 9MICROBIOLOGY AND IMMUNCLOGY *** WASTE SOURCE NO. 3 AIR SAMPLING FOR MICROORGANISMS DOCUMENT NO. 3.5.1.9.3 REFERENCE NO. 1 .. EXPERIMENT PROGRAM FOR EXTENDED EARTH OR BITAL MISSION REVISION DATED SEPTEMBER 1 968, NASA OFFICE OF MANNED SPACE FLIGHT **** WASTE ITEM NO. 1 MEDIA IN PLATES STATE SOLID DENSITY 34.30 LBS/CU. FT. ATTRIBUTES GEL CONTAMINATED ELEMENTS PRESENT .. COMPOSITION ORGANIC, POLYSTYRENE GENERATION DATA ... QUANTITY (LBS) EXP1. TOTAL DAILY RATE 115.00 0.71 0.00 BATCH SIZE RECLAMATION ACTION .. NONE ~***** WASTE ITEM NO. 2 INACCULATING LOOPS STATE SOLID DENSITY 1.70 LBS/CU. FT. ATTRIBUTES PLAST'C CONTAMINATED ELEMENTS PRESENT .. CCMPOSITICK POLYSTYRENE GENERATION DATA ... QUANTITY (LBS) EXPT. TOTAL 1.60 DAILY RATE 0.01 BATCH SIZE 0.00 RECLAMATION ACTION .. NONE

**** WASTE ITEM NJ. 3 STAINING PAPER
STATE SOLID

DENSITY C.30 LPS/CU. FT.

ATTRIBUTES PAPER CONTAMINATED

ELFMENTS PRESENT ..

COMPOSITION CELLULOSE, STAIN

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 1.60

DAILY RATE 0.02

BATCH SIZE 0.00

RECLAMATION ACTION ... NONE

0.00

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11/30/70
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S/C SUBSYSTEM BIOMEDICAL RESEARCH (I) GROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 9MICROBIOLOGY AND IMMUNCLOGY **** WASTE SOURCE NO. 3 AIR SAMPLING FOR MICROORGANISMS

***** WASTE ITEM NO. 4 MICROSCOPE SLIDE

STATE SOLID

DENSITY 19C.80 LBS/CU. FT. ATTRIBUTES GLASS CONTAMINATED >

ELEMENTS PRESENT ..

COMPOSITION BOROSILICATES

GENERATION DATA ... QUANTITY (LBS) EXPT. TOTAL 0.41 DAILY RATE 0.00

RECLAMATION ACTION .. NONE

*** ** WASTE ITEM NO. 5 PACKAGING MATERIAL

BATCH SIZE

STATE SOLID

DENSITY C.08 LBS/CU. FT. ATTRIBUTES PLASTIG CONTAMINATED

ELEMENTS PRESENT ..

CCMPOSITION POLYETHYLENE

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 2.60 DAILY RATE 0.40 BATCH SIZE 0.00

S/C SUBSYSTEM BIOMEDICAL RESEARCH (I) SROUP KEY 3.5.1

** EQUIPMENT/EXPERIMENT NO. 9MICROBIOLOGY AND IMMUNOLOGY ************************

**** WASTE SOURCE NO. 4 IMPUNDLOGICAL SURVEY OF CREW MEMBERS

DOCUMENT NO. 3.5.1.9.4

REFERENCE NO. 1 .. EXPERIMENT PROGRAM FOR EXTENDED EARTH OR BITAL MISSIONS, REVISION NO. 1, NASA OMS F, SEPTEMBER 1,1969.

***** WASTE ITEM NO. 1 SYRINGES

STATE SOLID

DENSITY 35.60 LBS/CU. FT.

ATTRIBUTES PLASTIC CONTAMINATION

ELEMENTS PRESENT ..

COMPOSITION POLYETHYLENE, ORGANIC MATERIAL

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 3.12
DAILY RATE 0.00
BATCH SIZE 0.06

RECLAMATION ACTION .. NONE

**** WASTE ITEM NO. 2 GAUZE PADS, ALCOHOL

STATE SOLID

DENSITY G.17 LBS/CU. FT. ATTRIBUTES GAUZE CONTAMINATED

ELEMENTS PRESENT ..

COMPOSITION COTTON, ALCOHOL

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 1.13
DAILY RATE 0.00
BATCH SIZE 0.02

RECLAMATION ACTION .. NONE

**** WASTE ITEM NO. 3 BAND-AIDS

STATE SOLID

DENSITY C.08 LBS/CU. FT.

ATTRIBUTES GAUZE, PLASTIC

ELEMENTS PRESENT ..

COMPOSITION COTTON, POLYETHYLENE

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.31
DAILY RATE 0.00
BATCH SIZE 0.01

S/C SUBSYSTEM BIOMEDICAL RESEARCH (I) SROUP KEY 3.5.1

**** ** WASTE ITEM NO. 4 PACKAGING MATERIAL

STATE SOLID

DENSITY C.08 LBS/CU. FT.

ATTRIBUTES PAPER, PLASTIC

ELEMENTS PRESENT ..

CCMPOSITION CELLULOSE, POLYETHYLENE

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.31
DAILY RATE 0.00
BATCH SIZE 0.01

S/C SUBSYSTEM MAN SYSTEMS INTEGRATION (A) GROUP KEY 3.5.2

BASIC FUNCTION PERFORM MISSION TASKS

FUNCTIONAL REQUIREMENT BIOTECHNOLOGY AND HUMAN RESEARCH

** EQUIPMENT/EXPERIMENT NO. 1 SPACE SYSTEMS HUMAN FACTORS

ASSOCIATED FPE NUMBER ...

S/C AREAS LABORATORY

ALL AREAS

AD LIB

COMMUNICATIONS

RECREATION

*** WASTE SOURCE NO. 1 RESTRAINT AND FINE-FORCE GENERATION

DOCUMENT NO. 3.5.2.1.1

REFERENCE NO. 1 .. EXPERIMENT PROGRAM FOR EXTENDED EARTH OR BITAL MISSIGNS, RFVISICN NO.1, SEPTEMBER 1,1969, NASA OMSF.

REFERENCE NO. 2 .. REPT.ON THE DEVELOPMENT OF THE MANNED OR BITAL RESEARCH LAB(MORL)SYSTEM UTILIZATI ON POTENTIAL.TASK AREA I ANALYSIS OF SPA CE REL.OBJ.BOOK 2 DOUGLAS REPT.SM48808,S

***** WASTE ITEM NO. 1 ... RECORDING TAPE

STATE SOLID

DENSITY 105.00 LBS/CU. FT.

ATTRIBUTES PLASTIC TAPE

ELEMENTS PRESENT .. FE,02

COMPOSITION MYLAR, POLYETHYLENE, TEREPHTHALATE RESIN

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 10.00
DAILY RATE 0.00

BATCH SIZE 0.20

RECLAMATION ACTION .. ERASE

S/C SUBSYSTEM MAN SYSTEMS INTEGRATION (A) GROUP KEY 3.5.2 ** EQUIPMENT/EXPERIMENT NO. 1SPACE SYSTEMS HUMAN FACTORS **** WASTE SOURCE NO. 1 RESTRAINT AND FINE-FORCE GENERATION ***** WASTE ITEM NO. 2 FILM, STILL, CINE STATE SOLID DENSITY 83.00 LBS/CU. FT. ATTRIBUTES PLASTIC STRIP ELEMENTS PRESENT .. AG, I COMPOSITION ACLAR GENERATION DATA ... QUANTITY (LBS) EXPT. TOTAL 1.50 DAILY RATE 0.00 BATCH SIZE 0.03 RECLAMATION ACTION .. N/R **** WASTE ITEM NO. 3 DATA SHEETS STATE SOLID DENSITY 72.00 LBS/CU. FT. ATTRIBUTES PAPER ELEMENTS PRESENT .. COMPOSITION CELLULOSE GENERATION DATA ... QUANTITY (LBS) EXPT. TOTAL DAILY RATE 0.30 0.00 BATCH SIZE 0.01 RECLAMATION ACTION .. N/R **** WASTE ITEM NO. 4 QUESTIONAIRES STATE SOLID DENSITY 72.00 LBS/CU. FT. ATTRIBUTES PAPER ELEMENTS PRESENT .. COMPOSITION CELLULOSE GENERATION DATA ... QUANTITY (LBS) EXPT. TOTAL 0.40 DAILY RATE

BATCH SIZE

RECLAMATION ACTION .. N/R

0.00

0.01

S/C SUBSYSTEM MAN SYSTEMS INTEGRATION (A)
GROUP KEY 3.5.2

** E JUIPMENT/EXPERIMENT NO. 1SPACE SYSTEMS HUMAN FACTORS

**** WASTE SOURCE NO. 1 RESTRAINT AND FINE-FORCE GENERATION

**** ** WASTE ITEM NO. 5 INSTRUMENTS

STATE SOLID

DENSITY 166.00 LBS/(U. FT.

ATTRIBUTES

ELEMENTS PRESENT ..

COMPOSITION VARIED

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 5.00
DAILY RATE 0.00
BATCH SIZE 0.10

RECLAMATION ACTION .. REPAIR

S/C SUBSYSTEM MAN SYSTEMS INTEGRATION (A) GROUP KEY 3.5.2 ** EJUIPMENT/EXPERIMENT NO. 1SPACE SYSTEMS HUMAN FACTORS **** WASTE SOURCE NO. 2 RESTRAINT AND GROSS FORCE GENEFATION DOCUMENT NO. 3.5.2.1.2 REMARKS (1) FOR OPERATIONAL DESCRIPTION SEE DOCUMENT NC.A-3.5.2.1.1 **** WASTE ITEM NO. 1 RECORDING TAPE STATE SOLID DENSITY 105.00 LBS/CU. FT. ATTRIBUTES PLASTIC TAPE ELEMENTS PRESENT .. FE . 02 COMPOSITION MYLAR, POLYETHYLENE, TEREPHTHALATE RESIN GENERATION DATA ... QUANTITY (LBS) EXPT. TOTAL 10.00 DAILY RATE 0.00 BATCH SIZE 0.20 RECLAMATION ACTION .. ERASE *** ** WASTE ITEM NO. 2 FILM, STILL CINE STATE SOLID DENSITY 83.00 LBS/CU. FT. ATTRIBUTES PLASTIC STRIP ELEMENTS PRESENT .. AG, I COMPOSITION ACLAR GENERATION DATA ... QUANTITY (LBS) EXPT. TOTAL 1.50 DAILY RATE 0.00 BATCH SIZE 0.03 RECLAMATION ACTION .. N/R **** WASTE ITEM NO. 3 ... CATA SHEETS STATE SOLID DENSITY 72.00 LBS/CU. FT. ATTRIBUTES PAPER ELEMENTS PRESENT ..

COMPOSITION CELLULOSE

GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.30
DAILY RATE 0.00

BATCH SIZE 0.01

S/C SUBSYSTEM MAN SYSTEMS INTEGRATION (A) 3ROUP KEY 3.5.2

***** WASTE ITEM NO. 4 QUESTIONAIRES

STATE SOLID

DENSITY 72.00 LBS/CU. FT.

ATTRIBUTES PAPER

ELEMENTS PRESENT ..

COMPOSITION CELLULOSE

GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.40
DAILY RATE 0.00
BATCH SIZE 0.01

RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 5 INSTRUMENTS

STATE SOLID

DENSITY 166.00 LBS/CU. FT.

ATTRIBUTES

ELEMENTS PRESENT ..

COMPOSITION VARIED

GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 5.00
DAILY RATE 0.00
BATCH SIZE 0.10

RECLAMATION ACTION .. REPAIR

```
S/C SUBSYSTEM .... MAN SYSTEMS_INTEGRATION (A)
   GROUP KEY .... 3.5.2
** EQUIPMENT/EXPERIMENT NO. 1 .....SPACE SYSTEMS HUMAN FACTORS
**** WASTE SOURCE NO. 3 .... PSYCHOMOTOR FUNCTIONS
         DOCUMENT NO. ..... 3.5.2.1.3
         REMARKS ( 1) ..... FOR OPERATIONAL DESCRIPTION SEL COCUMENT
                           NC.A-3.5.2.1.1
***** WASTE ITEM NO. 1 .... RECORDING TAPE
         STATE ..... SOLID
         DENSITY ..... 105.00 LBS/CU. FT.
         ATTRIBUTES .... PLASTIC TAPE
         ELEMENTS PRESENT .. FE,02
         COMPOSITION ..... MYLAR, POLYETHYLENE, TEREPHTHALATE RESIN
         GENERATION DATA ...
                                        QUANTITY (LBS)
                  EXPT. TOTAL
                                          10.00
                  DAILY RATE
                                           0.00
                  BATCH SIZE
                                           0.60
         RECLAMATION ACTION .. ERASE
*** ** WASTE ITEM NO. 2 .... FILM, STILL, CINE
         STATE ..... SCLID
         DENSITY ...... 83.00 LBS/CU. FT.
         ATTRIBUTES .... PLASTIC STRIP
         ELEMENTS PRESENT .. AG.I
         COMPOSITION ..... ACLAR
         GENERATION DATA ...
                                        QUANTITY (LBS)
                  EXPT. TOTAL
                                           1.50
                  DAILY RATE
                                           0.00
                  BATCH SIZE
                                           0.08
         RECLAMATION ACTION .. N/R
***** WASTE ITEM NO. 3 .... DATA SHEETS
         STATE ..... SOLID
         DENSITY ..... 72.00 LBS/CU. FT.
         ATTRIBUTES .... PAPER
         ELEMENTS PRESENT ..
         CGMPOSITION ..... CELLULOSE
         CENERATION DATA ...
                                        QUANTITY (LBS)
                  EXPT. TOTAL
                                           0.30
                  DAILY RATE
                                           0.00
                  BATCH SIZE
                                           0.02
```

S/C SUBSYSTEM MAN SYSTEMS INTEGRATION (A) GROUP KEY 3.5.2

** EQUIPMENT/EXPERIMENT NO. ISPACE SYSTEMS HUMAN FACTORS **** WASTE SOURCE NO. 3 PSYCHOMOTOR FUNCTIONS

**** WASTE ITEM NO. 4 QUESTIONAIRES

STATE N/R

DENSITY 72.00 LBS/CU. FT.

ATTRIBUTES PAPER

ELEMENTS PRESENT ..

COMPOSITION CELLULOSE

GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.40

DAILY RATE 0.00
BATCH SIZE 0.02

RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 5 INSTRUMENTS

STATE SOLID

DENSITY 166.00 LBS/CU. FT.

ATTRIBUTES

ELEMENTS PRESENT ..

COMPOSITION VARIED

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 10.00
DAILY RATE 0.00
BATCH SIZE 0.60

RECLAMATION ACTION .. REPAIR

S/C SUBSYSTEM MAN SYSTEMS INTEGRATION (A) SROUP KEY 3.5.2

**** WASTE SOURCE NO. 4 VOLUME AND LAYOUT OF CREW WORK AND REST AREAS AND MODIFICATIONS

DOCUMENT NO. 3.5.2.1.4

REFERENCE NO. 1 .. EXPERIMENT PROGRAM FOR EXTENDED EARTH OR BITAL MISSIONS, REVISION NO.1, SEPTEMBER 1, 1969, NASA OMSF.

REFERENCE NO. 2 .. MISSION AND EXPERIMENT PROGRAM REQUIREMENTS FOR A ONE-YEAR SPACE STATION, GEORGE C. MARSHALL SPACE FLIGHT CENTER, FEBRUARY 1967.

REFERENCE NO. 3 .. MANNED SPACE FLIGHT EXPERIMENT SUMMARY, G EORGE C. MARSHALL SPACE FLIGHT CENTER, FEB RUARY 1967.

**** WASTE ITEM NO. 1 ... RECORDING TAPE

STATE SOLID

DENSITY 105.00 LBS/CU. FT.

ATTRIBUTES PLASTIC TAPE

ELEMENTS PRESENT .. FE,02

COMPOSITION MYLAR, POLYETHYLENE, TEREPHTHALATE RESIN

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 1.50
DAILY RATE 0.00

BATCH SIZE 0.12

RECLAMATION ACTION .. ERASE

***** WASTE ITEM NO. 2 FILM, STILL, CINE

STATE SOLID

DENSITY 83.00 LBS/CU. FT.

ATTRIBUTES PLASTIC STRIP

ELEMENTS PRESENT .. AG,I

COMPOSITION ACLAR

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.50
DAILY RATE 0.00
BATCH SIZE 0.04

```
S/C SUBSYSTEM .... MAN SYSTEMS INTEGRATION (A)
    3ROUP KEY ..... 3.5.2
** EQUIPMENT/EXPERIMENT NO. 1 .....SPACE SYSTEMS HUMAN FACTORS
**** WASTE SOURCE NO. 4 .... VOLUME AND LAYOUT OF CREW WORK AND REST
                           AREAS AND MODIFICATIONS
***********************
**** WASTE ITEM NO. 3 .... DATA SHEETS
         STATE .... SOLID
         DENSITY ..... 72.00 LBS/CU. FT.
         ATTRIBUTES .... PAPER
         ELEMENTS PRESENT ..
         CCMPOSITION ..... CELLULOSE
         GENERATION DATA ...
                                        QUANTITY (LBS)
                  EXPT. TOTAL
                                           1.50
                  DAILY RATE
                                           0.00
                  BATCH SIZE
                                           0.12
         RECLAMATION ACTION .. N/R
***** WASTE ITEM NO. 4 ... QUESTIONAIRES
         STATE ..... SCLID
         DENSITY ..... 72.00 LBS/CU. FT.
         ATTRIBUTES .... PAPER
         ELEMENTS PRESENT ..
         COMPOSITION ..... CELLULOSE
         GENERATION DATA ...
                                        QUANTITY (LBS)
                  EXPT. TOTAL
                                           0.20
                > DAILY RATE
                                           0.00
                  BATCH SIZE
                                           0.02
        RECLAMATION ACTION .. N/R
```

S/C SUBSYSTEM MAN SYSTEMS INTEGRATION (A) 3ROUP KEY 3.5.2 ~

** E JUIPMENT/EXPERIMENT NO. 1SPACE SYSTEMS HUMAN FACTORS

**** WASTE SOURCE NO. 5 INTERIOR DESIGN

DOCUMENT NO. 3.5.2.1.5

REMARKS (1) FOR OPERATIONAL DESCRIPTION SEE COCUMENT NO.A-3.5.2.1.4

***** WASTE ITEM NO. 1 RECORDING TAPE

STATE SOLID

DENSITY 105.00 LBS/CU. FT.

ATTRIBUTES PLASTIC TAPE

ELEMENTS PRESENT .. FE,02

COMPOSITION MYLAR, POLYETHYLENE, TEREPHTHALATE RESIN

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 1.50
DAILY RATE 0.00
BATCH SIZE 0.12

RECLAMATION ACTION .. ERASE

**** WASTE ITEM NO. 2 ... DATA SHEETS

STATE SOLID

DENSITY 72.00 LBS/CU. FT.

ATTRIBUTES PAPER

ELEMENTS PRESENT ..

COMPOSITION CELLULOSE

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.15
DAILY RATE 0.00
BATCH SIZE 0.01

RECLAMATION ACTION .. N/R

**** WASTE ITEM NO. 3 QUESTIONAIRES

STATE SOLID

DENSITY 72.00 LBS/CU. FT.

ATTRIBUTES PAPER

ELEMENTS PRESENT ..

CCMPOSITION CELLULOSE

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.20 DAILY RATE 0.00 BATCH SIZE 0.02

S/C SUBSYSTEM MAN SYSTEMS INTEGRATION (A) 3ROUP KEY 3.5.2

**** WASTE ITEM NO. 4 TEST SHEETS (PAPER AND PEN)

STATE SOLID

DENSITY 72.00 LBS/CU. FT.

ATTRIBUTES PAPER

ELEMENTS PRESENT ..

COMPOSITION CELLULOSE

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.50
DAILY RATE 0.00
BATCH SIZE 0.04

```
S/C SUBSYSTEM .... MAN SYSTEMS INTEGRATION (A)
   GROUP KEY .... 3.5.2
## E JUIPMENT/EXPERIMENT NO. 1 .....SPACE SYSTEMS HUMAN FACTORS
**** WASTE SOURCE NO. 6 ... CLOTHING
         DOCUMENT NO. ..... 3.5.2.1.6
         REFERENCE NO. 1 .. NATIONAL MULTIPURPOSE SPACE STATION, NASA
                            MSC. DECEMBER 1964.
         REFERENCE NO. 2 .. EXPERIMENT PROGRAM FOR EARTH ORBITAL MIS
                            SICNS, REVISION NO.1, SEPTEMBER 1, 1969, NAS
**** WASTE ITEM NO. 1 .... RECORDING TAPE
         STATE ..... SOLID
         DENSITY ..... 105.00 LBS/CU. FT.
         ATTRIBUTES .... PLASTIC TAPE
         ELFMENTS PRESENT .. FE,02
         COMPOSITION ..... MYLAR, POLYETHYLENE, TEREPHTHALATE RESIN
         GENERATION DATA ...
                                         QUANTITY (LBS)
                  EXPT. TOTAL
                                            1.00
                  DAILY RATE
                                            0.00
                  BATCH SIZE
                                            0.08
         RECLAMATION ACTION .. ERASE
***** WASTE ITEM NO. 2 .... FILM, STILL, CINE
         STATE ..... SOLID
         DENSITY ...... 83.00 LBS/CU. FT.
         ATTRIBUTES ..... PLASTIC STRIP
         ELEMENTS PRESENT .. AG, I
         COMPOSITION .... ACLAR
         GENERATION DATA ...
                                          QUANTITY (LBS)
                  EXPT. TOTAL
                                            0.30
                  DAILY RATE
                                            0.00
                  BATCH SIZE
                                            0.02
         RECLAMATION ACTION .. N/R
**** WASTE ITEM NO. 3 .... DATA SHEETS
         STATE ..... SCLID
         DENSITY ..... 72.00 LBS/CU. FT.
         ATTRIBUTES .... PAPER
         ELEMENTS PRESENT ...
         COMPOSITION ..... CELLULOSE
                                          QUANTITY (LBS)
         GENERATION DATA ...
                  EXPT. TOTAL
                                            0.10
                  DAILY RATE
                                            0.00
                  BATCH SIZE
                                            0.01
```

S/C SUBSYSTEM MAN SYSTEMS INTEGRATION (A) 3ROUP KEY 3.5.2 ** EQUIPMENT/EXPERIMENT NO. 1 SPACE SYSTEMS HUMAN FACTORS

**** WASTE SOURCE NO. 6 CLOTHING

****** WASTE ITEM NO. 4 QUESTIONAIRES

STATE SOLID

DENSITY 72.00 LBS/CU. FT.

ATTRIBUTES PAPER

ELEMENTS PRESENT ..

COMPOSITION CELLULOSE

QUANTITY (LBS) GENERATION DATA ...

EXPT. TOTAL 0.15 DAILY RATE 0.00 BATCH SIZE 0.01

RECLAMATION ACTION ... N/R

***** WASTE ITEM NO. 5 INSTRUMENT

STATE SOLID

DENSITY 166.00 LBS/CU. FT.

ATTRIBUTES

ELEMENTS PRESENT ..

COMPOSITION VARIED

GENERATION DATA ... QUANTITY (LBS)

> EXPT. TOTAL 3.00 - DAILY RATE 0.00 0.25 BATCH SIZE

RECLAMATION ACTION .. REPAIR

S/C SUBSYSTEM MAN SYSTEMS INTEGRATION (A) GROUP KEY 3.5.2

** EJUIPMENT/EXPERIMENT NO. 1SPACE SYSTEMS HUMAN FACTORS

**** WASTE SOURCE NO. 7 INTERPERSONAL FACTORS

DOCUMENT NO. 3.5.2.1.7

REFERENCE NO. 1 .. MEDICAL ASPECTS OF AN OPBITING RESEARCH LABORATORY, NASA SPACE MEDICINE ADVISORY GRCUP, NASA REPORT NC.SP-86, 1966.

REFERENCE NO. 2 .. EXPERIMENT PROGRAM FOR EXTENDED EARTH OR BITAL MISSIONS, REVISION NO. 1, SEPTEMBER 1 , 1969, NASA OMSF.

REFERENCE NO. 3 .. MISSION AND EXPERIMENT PROGRAM REQUIRENE NTS FOR A ONE-YEAR SPACE STATION, GEORGE C. MARSHALL SPACE FLIGHT CENTER, FEBRUARY 1967.

**** * WASTE ITEM NO. 1 RECORDING TAPE

STATE SOLID

DENSITY 105.00 LBS/CU. FT.

ATTRIBUTES PLASTIC TAPE

ELEMENTS PRESENT .. FE,02

COMPOSITION MYLAR, POLYETHYLENE, TEREPTHALATE RESIN

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 1.00 DAILY RATE 0.00

BATCH SIZE 0.08

RECLAMATION ACTION .. ERASE

**** WASTE ITEM NO. 2 QUESTIONAIRES

STATE SOLID

DENSITY 72.00 LBS/CU. FT. ATTRIBUTES PAPER

ELFMENTS PRESENT ..

COMPOSITION CELLULOSE

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.15 0.00 DAILY RATE BATCH SIZE 0.01

S/C SUBSYSTEM MAN SYSTEMS INTEGRATION'(A)
GROUP KEY 3.5.2

** E JUIPMENT/EXPERIMENT NO. 1SPACE SYSTEMS HUMAN FACTORS
**** WASTE SOURCE NO. 7 INTERPERSONAL FACTORS

****** WASTE ITEM NO. 3 PAPER (PAPER AND PEN TESTS)

STATE SCLID

DENSITY 72.00 LBS/CU. FT.

ATTRIBUTES SHEETS

ELEMENTS PRESENT ..

CCMPOSITION CELLULOSE

GENERATION DATA ...

EXPT. TOTAL 0.10
DAILY RATE 0.00
BATCH SIZE 0.01

QUANTITY (LBS)

```
S/C SUBSYSTEM .... MAN SYSTEMS INTEGRATION (A)
    GROUP KEY .... 3.5.2
** EQUIPMENT/EXPERIMENT NO. 1 ..... SPACE SYSTEMS HUMAN FACTORS
**** WASTE SOURCE NO. 8 .... RECREATION
         DOCUMENT NO. ..... 3.5.2.1.8
         REMARKS ( 1) ..... FOR OPERATIONAL DESCRIPTION SET COCUMENT
                            NC.A-3.5.2.1.4
***** WASTE ITEM NO. 1 .... RECORDING TAPE
         STATE ..... SOLID -
         DENSITY ..... 105.00 LBS/CU. FT.
         ATTRIBUTES .... PLASTIC TAPE
         ELEMENTS PRESENT .. FE,02
         COMPOSITION ..... MYLAR, POLYETHYLENE, TEREPHTHALATE RESIN
         GENERATION DATA ...
                                          QUANTITY (LBS)
                  EXPT. TOTAL DAILY RATE
                                           10.00
                                            0.00
                  BATCH SIZE
                                            0.80
         RECLAMATION ACTION .. ERASE
**** WASTE ITEM NO. 2 .... FILM, STILL, CINE
         STATE ..... SOLID
         DENSITY ..... 83.00 LBS/CU. FT. ATTRIBUTES ..... PLASTIC STRIP
         ELEMENTS PRESENT .. AG, I
         COMPOSITION ..... ACLAR
         GENERATION DATA ...
                                          QUANTITY (LBS)
                  EXPT. TOTAL
                                           1.50
                  DAILY RATE
                                           0.00
                  BATCH SIZE
                                            0.12
         RECLAMATION ACTION .. N/R
**** ** WASTE ITEM NO. 3 .... DATA SHEETS
         STATE ..... SOLID
         DENSITY ..... 72.00 LBS/CU. FT.
         ATTRIBUTES .... PAPER
         ELEMENTS PRESENT ..
         CCMPOSITION ..... CELLULGSE
         CENERATION DATA ...
                                          QUANTITY (LBS)
                  EXPT. TOTAL
                                            0.30
```

0.00

0.02

DAILY RATE

BATCH SIZE

S/C SUBSYSIEM MAN SYSTEMS INTEGRATION (A) 3ROUP KEY 3.5.2

** EQUIPMENT/EXPERIMENT NO. 1SPACE SYSTEMS HUMAN FACTORS
**** WASTE SOURCE NO. 8 RECREATION

**** WASTE ITEM NO. 4 QUESTIONNAIRES

STATE SOLID

DENSITY 72.00 LBS/CU. FT.

ATTRIBUTES PAPER

ELEMENTS PRESENT ..

CCMPOSITION CELLULOSE

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.40 DAILY RATE 0.00 BATCH SIZE 0.03

S/C SUBSYSTEM MAN SYSTEMS INTEGRATION (A) 3ROUP KEY 3.5.2

** EQUIPMENT/EXPERIMENT NO. 2 EVA/IVA TECHNOLOGY

ASSOCIATED FPE NUMBER ... S/C AREAS AD LIB

E.V.A.

E.V.A. PLUS AD LIB

LAPCRATORY

WORK AREAS AIRLOCK

**** WASTE SOURCE NO. 1 ORIENTATION, STABILITY AND RESTRAINT

DOCUMENT NO. 3.5.2.2.1

REFERENCE NO. I .. EXPERIMENT PROGRAM FOR EXTENDED EARTH OP BITAL MISSIONS, REVISION NO. 1, SEPTEMBE R 1, 1969, NASA DMSF.

REFERENCE NO. 2 .. MISSION AND EXPERIMENT PROGRAM REQUIREME NTS FOR A ONE-YEAR SPACE STATION, GEORGE C. MARSHALL SPACE FLIGHT CENTER, FEBRU ARY 1967.

REFERENCE NO. 3 .. EVEA PROGRAM REQUIREMENTS STUDY. FINAL R EPORT, NORTH AMERICAN ROCKWELL REPORT NO. SD-68-304-7, 1968.

***** WASTE ITEM NO. 1 ... RECORDING TAPE

STATE SOLID

DENSITY 105.00 LBS/CU. FT.

ATTRIBUTES PLASTIC, TAPE

ELEMENTS PRESENT ..

COMPOSITION MYLAR-FEO2, POLYETHYLENE, TEREPHTHALATE, RESIN

GENERATION DATA ... QUANTITY (LBS)

> EXPT. TOTAL DAILY RATE

12.00 0.00

BATCH SIZE

0.24

RECLAMATION ACTION .. ERASE

```
S/C SUBSYSTEM .... MAN SYSTEMS INTEGRATION (A)
   3ROUP KEY .... 3.5.2
** EQUIPMENT/EXPERIMENT NO. 2 .....EVA/IVA TECHNOLCGY
★★★★ WASTE SOURCE NO。 1 。。。。 CRIENTATION, STABILITY AND RESTRAINT
**** ** WASTE ITEM NO. 2 .... FILM, STILL, CINE
         STATE ..... SOLID
         DENSITY ..... 72.00 LBS/CU. FT.
         ATTRIBUTES ..... PLASTIC, STRIP
         ELEMENTS PRESENT ...
         COMPOSITION ..... ACLAR AGI
         GENERATION DATA ...
                                        QUANTITY (LBS)
                  EXPT. TOTAL
                                           2.50
                  DAILY RATE
                                           0.00
                  BATCH SIZE
                                           0.00
         RECLAMATION ACTION .. N/R
***** WASTE ITEM NO. 3 .... DATA SHEETS
         STATE ..... SOLID
         DENSITY ..... 72.00 LBS/CU. FT.
         ATTRIBUTES .... PAPER
         ELEMENTS PRESENT ...
         COMPOSITION ..... CELLULOSE
         GENERATION DATA ...
                                        QUANTITY (LBS)
                  EXPT. TOTAL
                                           0.05
                  DAILY RATE
                                           0.00
                BATCH SIZE
                                           0.00
         RECLAMATION ACTION .. N/R
**** WASTE ITEM NO. 4 .... INSTRUMENTS
         STATE ..... SOLID
         DENSITY ..... 166.00 LBS/CU. FT.
         ATTRIBUTES .... METAL
         ELEMENTS PRESENT ..
         COMPOSITION .... VARIED
         GENERATION DATA ...
                                        QUANTITY (LBS)
                  EXPT. TOTAL
                                           3.00
                  DAILY RATE
                                           0.00
                  BATCH SIZE
                                           0.06
```

RECLAMATION ACTION .. REPAIR

S/C SUBSYSTEM MAN SYSTEMS INTEGRATION (A) SROUP KEY 3.5.2

**** WASTE SOURCE NO. 2 PERSONNEL TRANSLATION

COCUMENT NO. 3.5.2.2.2

REFERENCE NO. 1 .. EXPERIMENT PROGRAM FOR EXTENDED EARTH OR BITAL MISSIONS, REVISION NO. 1, SEPTEMBE R 1, 1969, NASA OMSF.

REFERENCE NO. 2 .. MISSION AND EXPERIMENT PROGRAM REQUIREME NTS FOR A ONE-YEAR SPACE STATION, GEORGE C. MARSHALL SPACE FLIGHT CENTER, FEBRU ARY, 1967.

REFERENCE NO. 3 .. MANNED SPACE FLIGHT EXPERIMENT SUMMARY, GECRGE C. MARSHALL SPACE FLIGHT CENTER FE BRUARY 1967.

***** WASTE ITEM NO. 1 ... RECORDING TAPE

STATE SOLID

DENSITY 105.00 LBS/CU. FT.

ATTRIBUTES PLASTIC, STRIP

ELEMENTS PRESENT ..

COMPOSITION MYLAR-FEO2, POLYETHYLENE, TEREPHTHALATE,

RESIN

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 5.00
DAILY RATE 0.00
BATCH SIZE 0.10

RECLAMATION ACTION .. ERASE

**** WASTE ITEM NO. 2 FILM, STILL, CINE

STATE SOLID

DENSITY 83.00 LBS/CU. FT.

ATTRIBUTES PLASTIC, STRIP

ELEMENTS PRESENT ...

COMPOSITION ACLAR AGI

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.40
DAILY RATE 0.00
BATCH SIZE 0.01

```
S/C SUBSYSTEM .... MAN SYSTEMS INTEGRATION (A)
   3ROUP KEY .... 3.5.2
** EQUIPMENT/EXPERIMENT NO. 2 ....EVA/IVA TECHNOLCGY
**** WASTE SOURCE NO. 2 .... PERSONNEL TRANSLATION
***** WASTE ITEM NO. 3 ... DATA SHEETS
         STATE ..... SOLID
        DENSITY ..... 72.00 LBS/CU. FT.
         ATTRIBUTES .... PAPER
         ELEMENTS PRESENT ..
        COMPOSITION ..... CELLULOSE
                                        QUANTITY (LBS)
         GENERATION DATA ...
                 EXPT. TOTAL
                                          0.20
                                          0.00
                 DAILY RATE
                                          0.00
                 BATCH SIZE
         RECLAMATION ACTION .. N/R
**** WASTE ITEM NO. 4 .... QUESTIONNAIRES
         STATE ..... SOLID
         DENSITY ..... 72.00 LBS/CU. FT.
         ATTRIBUTES .... PAPER
         ELEMENTS PRESENT ..
         COMPOSITION ..... CELLULOSE
                                        QUANTITY (LBS)
         GENERATION DATA ...
                                          0.10
                  EXPT. TOTAL
                DAILY RATE
                                          0.00
                                          0.00
                  BATCH SIZE
         RECLAMATION ACTION .. N/R
***** WASTE ITEM NO. 5 .... INSTRUMENTS
         STATE ..... SOLID
         DENSITY ..... 166.00 LBS/CU. FT.
         ATTRIBUTES .... METAL
         ELEMENTS PRESENT ..
         COMPOSITION ..... VARIED
                                        QUANTITY (LBS)
         GENERATION DATA ...
                  EXPT. TOTAL
                                          3.00
                  DAILY RATE
                                          0.00
                                          0.06
                  BATCH SIZE
```

RECLAMATION ACTION .. REPAIR

11/30/70 RUN NO. ** 2 ** S/C SUBSYSTEM MAN SYSTEMS INTEGRATION (A) 3ROUP KEY 3.5.2 ** FQUIPMENT/EXPERIMENT NO. 2EVA/IVA TECHNOLOGY ****************************** **** WASTE SOURCE NO. 3 MASS TRANSLATION COCUMENT NO. 3.5.2.2.3 REMARKS (1) FOR OPERATIONAL DESCRIPTION SEE DOCUMENT NC. A- 3.5.2.2.2 **** ** WASTE ITEM NO. 1 RECORDING TAPE STATE SOLID DENSITY 105.00 LBS/CU. FT. ATTRIBUTES PLASTIC TAPE ELEMENTS PRESENT .. COMPOSITION MYLAR-FEO2, POLYETHYLENE, TEREPHTHALATE, RESIN QUANTITY (LBS) GENERATION DATA ... EXPT. TOTAL DAILY RATE 3.00 0.00 BATCH SIZE 0.06 RECLAMATION ACTION .. ERASE **** WASTE ITEM NO. 2 FILM, STILL, CINE STATE SCLID DENSITY 83.00 LBS/CU. FT. ATTRIBUTES PLASTIC, STRIP ELEMENTS PRESENT .. COMPOSITION ACLAR AGI

QUANTITY (LBS) GENERATION DATA ... EXPT. TOTAL 0.50 DAILY RATE 0.00 BATCH SIZE 0.01

RECLAMATION ACTION .. N/R

RECLAMATION ACTION .. N/R

**** WASTE ITEM NO. 3 DATA SHEET STATE SOLID DENSITY 72.00 LBS/CU. FT. ATTRIBUTES PAPER ELEMENTS PRESENT .. CEMPOSITION CELLULOSE GENERATION DATA ... QUANTITY (LBS) EXPT. TOTAL 0.10 DAILY RATE 0.00 BATCH SIZE 0.00

S/C SUBSYSTEM MAN SYSTEMS INTEGRATION (A) GROUP KEY 3.5.2

** EQUIPMENT/EXPERIMENT NO. 2EVA/IVA TECHNOLOGY

**** WASTE SOURCE NO. 3 MASS TRANSLATION

***** WASTE ITEM NO. 4 QUESTIONNAIRES

STATE SOLID

DENSITY 72.00 LBS/CU. FT.

ATTRIPUTES PAPER

ELEMENTS PRESENT ..

CCMPOSITION CELLULOSE

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.40
DAILY RATE 0.00
BATCH SIZE 0.01

- S/C SUBSYSTEM MAN SYSTEMS INTEGRATION (A) FROUP KEY 3.5.2
- ** E QUI PMENT/EXPERIMENT NO. 2EVA/IVA TECHNOLOGY

- **** WASTE SOURCE NO. 4 PROTECTIVE CLOTHING AND ADVANCED SPACE S

 UIT ASSEMBLY DEVELOPMENT
 - COCUMENT NO. 3.5.2.2.4
 - REFERENCE NO. 1 .. BACH, R.O., W W. BOARDMAN, JR., AND J.W. ROBINSON, JR. APPLICATION OF LITHIUM CHEMICALS FOR AIR REGENERATION OF MANNED S PACECRAFT. AMRL-TR-65-106, JUNE 1965.
 - REFERENCE NO. 2 .. BORYTA, D.A. AND E.W. DEZMEŁYK. CONFIGUR ATION INVESTIGATION FOR LITHJUN OXIDE CA RBCN DIOXIDE CONTROL SYSTEMS. AMRL-TR-67-62, OCTOBER, 1967
 - REFERENCE NO. 3 .. CHANDLER, H.W., E. MCDONALD, F.Z. POLLAR
 A, ANDG. HALDEN. DESIGN AND DEVELOPMENT
 OF REGENERATIVE CARBON DIOXIDE SCRBORS.
 AMRL-TR-62-135, NOVEMBER 1962.
 - REFERENCE NO. 4 .. DESCRIPTIVE TITLES OF EXPERIMENTS SELECT ED BY LANGLEY RESEARCH CENTER, 15 NOVEMB ER 1963.
 - REFERENCE NO. 5 .. DEVELOPMENT OF THE MORL, ANALYSIS OF SPA CE RELATED OBJECTIVES, DOUGLAS REPORT NO . SM48808 SEPTEMBER 1965.
 - REFERENCE NO. 6 .. EVALUATION OF DESORBATES FROM A REGENERA TIVE CO2 REMOVAL SYSTEM USED IN A 60 DAY MANNED TEST. MCDC ADVANCED BIOTECHNOLOG Y AND POWER DEPARTMENT 1969.
 - REFERENCE NO. 7 .. EXPERIMENT PROGRAM FOR EXTENDED EARTH OR BITAL MISSIONS, NASA AAMP 1 SEPTEMBER 1 969.
 - REFERENCE NO. 8 .. EXPERIMENT PROGRAM FOR CNE-YEAR SPACE ST ATION MISSION. MEMO MSFC 10 FEBRUARY 19 67
 - REFERENCE NO. 9 .. FIXLER, S.Z., SATELLITE THERMAL CONTROL USING PHASE-CHANGE MATERIALS. J. SPACECR AFT. 3, 1966, PP. 1362-1368
 - PEFFRENCE NO. 10 .. FEDGE, J.C., SURVEY OF THERMAL CONTROL T ECHNIQUES FOR EXTRAVEHICULAR SPACE SUITS APRL TR-68-R7, DECEMBER 1968.
 - REFERENCE NO. 11 .. I AM EXPERIMENT PROGRAM FOR MANNED EARTH ORBITAL MISSIONS. VOL. 1. IBM PEPOPT NO. 65-928-63-CONTRACT NO. NASI-4667, AUGUS T 1965.

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S/C SUBSYSTEM .... MAN SYSTEMS INTEGRATION (A)
    3ROUP KEY ..... 3.5.2
** EQUIPMENT/EXPERIMENT NO. 2 .....EVA/IVA TECHNOLOGY
*** WASTE SOURCE NO. 4 .... PROTECTIVE CLOTHING AND ADVANCED SPACE S
                             ULT ASSEMBLY DEVELOPMENT
REFERENCE NO. 12 .. KEATING, D. A., K. WEISHURM, C. M. MEYER, G. W. FI
                             LSCN AND J.H.LANTZ.MANNED TESTING OF SEM
                             I-PASSIVE POTASSIUM SUPEROXIDE ATMOSPHER
                                                         AMRL-TR-65-
                             E CONTROL SYSTEM
         REFERENCE NO. 13 .. NASA EXPERIMENT DESCRIPTIONS FOR EXTENDE
                             D APOLLO EARTH ORBIT FLIGHTS 15 MARCH 19
                             65.
**** WASTE ITEM NO. 1 ... FILM, CINE
          STATE ..... SOLID
         DENSITY ..... 83.00 LBS/CU. FT.
          ATTRIBUTES ..... PLASTIC, STRIP
         ELEMENTS PRESENT ..
         COMPOSITION ..... ACLAR, AGI
          GENERATION DATA ...
                                            QUANTITY (LBS)
                   EXPT. TOTAL
                                              0.50
                   DAILY RATE
                                               0.00
                                              0.02
                   BATCH SIZE
         RECLAMATION ACTION .. N/R
***** WASTE ITEM NO. 2 .... DOSIMETERS-CONTENTS RADIOLUMINESCENT
          STATE ..... SOLID
          DENSITY ...... 397.50 LBS/CU. FT.
          ATTRIBUTES .... GLASS
          ELEMENTS PRESENT ..
          COMPOSITION ..... AG3PO4
                                            QUANTITY (LBS)
          GENERATION DATA ...
                   EXPT. TOTAL
                                               0.20
                   DAILY RATE
                                               0.00
                   BATCH SIZE
                                               0.01
          RECLAMATION ACTION .. N/R
**** ** WASTE ITEM NO. 3 .... DOSIMETERS - CHEMICAL
          STATE ..... LICUID
          DENSITY ...... 131.00 LBS/CU. FT.
          ATTRIBUTES ..... CHEMICAL
          ELEMENTS PRESENT ..
          COMPUSITION ..... FE2(SO4)3
          GENERATION DATA ...
                                            QUANTITY (LBS)
                   EXPT. TOTAL
                                               0.20
                   DAILY RATE
                                               0.00
                                              0.01
                    BATCH SIZE
          RECLAMATION ACTION .. N/R
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S/C SUBSYSTEM .... MAN SYSTEMS INTEGRATION (A)
   GROUP KEY .... 3.5.2
** E TUIPMENT/EXPERIMENT NO. 2 .....EVA/IVA TECHNOLOGY
**** WASTE SOURCE NO. 4 .... PRCTECTIVE CLOTHING AND ADVANCED SPACE S
                          UIT ASSEMBLY DEVELOPMENT
**** WASTE ITEM NO. 4 ... DOSIMETERS - THER MOLUMINESCANT
         STATE ..... SOLID
         DENSITY ...... 138.00 LBS/CU. FT.
         ATTRIBUTES .... CHEMICAL
         ELEMENTS PRESENT .. LI . F
         COMPOSITION .....
                                       QUANTITY (LBS)
         GENERATION DATA ...
                  EXPT. TOTAL
                                           0.30
                  DAILY RATE
                                           0.00
                                           0.15
                  BATCH SIZE
         RECLAMATION ACTION .. N/R
***** WASTE ITEM NO. 5 .... CHARCOAL
         STATE ..... SOLID
         DENSITY ..... 125.00 LBS/CU. FT.
         ATTRIBUTES ..... FLAKES
         ELEMENTS PRESENT .. C
         COMPOSITION .....
                                        QUANTITY (LBS)
         GENERATION DATA ...
                  EXPT. TOTAL
                                           1.40
                  DAILY RATE
                                           0.00
                  BATCH SIZE
                                           0.07
         RECLAMATION ACTION .. PURGE, REACTIVATE
**** WASTE ITEM NO. 6 .... SILICA GEL
         STATE ..... SOLID
         DENSITY ...... 137.00 LBS/CU. FT.
         ATTRIBUTES ..... POWDER
         ELEMENTS PRESENT ..
         CCMPOSITION ..... SIC2.NH20
                                         QUANTITY (LBS)
         GENERATION DATA ...
                  EXPT. TOTAL
                                           5,00
                  DAILY RATE
                                           0.00
                                           0.25
                  BATCH SIZE
         RECLAMATION ACTION .. DRY, PURGE
```

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S/C SUBSYSTEM .... MAN SYSTEMS INTEGRATION (A)
   GROUP KEY .... 3.5.2
** EQUIPMENT/EXPERIMENT NO. 2 .....FVA/IVA TECHNOLCGY
**** WASTE SOURCE NO. 4 ... PRETECTIVE CLOTHING AND ADVANCED SPACE S
                         UIT ASSEMBLY DEVELOPMENT
**** WASTE ITEM NO. 7 .... RECORDING TAPE
         STATE ..... SOLID
         DENSITY ..... 105.00 LBS/CU. FT.
         ATTRIBUTES .... TAPE
         ELEMENTS PRESENT ..
         COMPOSITION ..... ACLAR , FED
         GENERATION DATA ...
                                        QUANTITY (LBS)
                 EXPT. TOTAL
                                           0.30
                                           0.00
                  DAILY RATE
                  BATCH SIZE
                                           0.01
         RECLAMATION ACTION .. ERASE
  ** ** WASTE ITEM NO. 8 .... SUIT COMPONENTS
         STATE ..... SOLID
         DENSITY ....
                            C.OO LBS/CU. FT.
         ATTRIBUTES .... MJ SCELLANEOUS
         ELEMENTS PRESENT ...
         COMPOSITION .... VARIED
         GENERATION DATA ...
                                        QUANTITY (LBS)
                 EXPT. TOTAL
                                           0.00
                 DAILY RATE
                                           0.00
                  BATCH SIZE
                                           0.00
         RECLAMATION ACTION .. SALVAGE
**** WASTE ITEM NO. 9 .... LICH ABSORBER
         STATE ..... SOLID
         DENSITY ..... 28.00 LBS/CU. FT.
         ATTRIBUTES ..... POWDER
         ELEMENTS PRESENT ..
         COMPOSITION ..... LICH
         GENERATION DATA ...
                                        QUANTITY (LBS)
                  EXPT. TOTAL
                                           2.33
                  DAILY RATE
                                           0.00
                  BATCH SIZE
                                          2.33
         RECLAMATION ACTION .. N/R
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S/C SUBSYSTEM .... MAN SYSTEMS INTEGRATION (A)
   3ROUP KEY ..... 3.5.2
** EQUIPMENT/EXPERIMENT NO. 2 .....EVA/IVA TECHNOLCGY
**** WASTE SOURCE NO. 4 .... PROTECTIVE CLOTHING AND ADVANCED SPACE S
                           UIT ASSEMBLY DEVELOPMENT
**** WASTE ITEM NO. 10 .... DATA SHEETS
        STATE ..... SOLID
        'DENSITY ..... 72.00 LBS/CU. FT.
        ATTRIBUTES ..... SHEETS
         ELEMENTS PRESENT ..
         COMPOSITION ..... CELLULOSE
         GENERATION DATA ...
                                        QUANTITY (LBS)
                 EXPT. TOTAL
                                           3.00
                  DAILY RATE
                                           0.00
                                           0.15
                  BATCH SIZE
         RECLAMATION ACTION .. N/R
**** WASTE ITEM NO. 11 .... NITROGEN
         STATE ..... GAS
         DENSITY ..... 0.07 LBS/CU. FT.
         ATTRIBUTES ......
         ELEMENTS PRESENT .. N2
         COMPOSITION .....
         GENERATION DATA ...
                                        QUANTITY (LBS)
                  EXPT. TOTAL
                                           0.50
                  DAILY RATE
                                           0.00
                  BATCH SIZE
                                           0.02
         RECLAMATION ACTION .. N/R
***** WASTE ITEM NO. 12 .... CARBON DIOXIDE
         STATE ..... GAS
         DENSITY ..... O.11 LBS/CU. FT.
         ATTRIBUTES ......
         ELEMENTS PRESENT ...
         COMPOSITION ..... CO2
         GENERATION DATA ...
                                        QUANTITY (LBS)
                  EXPT. TOTAL
                                           1.70
                  DAILY RATE
                                           0.00
                  BATCH SIZE
                                           0.08
```

RECLAMATION ACTION .. SABATIER

```
S/C SUBSYSTEM .... MAN SYSTEMS INTEGRATION (A)
    3ROUP KEY .... 3.5.2
** EQUIPMENT/EXPERIMENT NO. 2 ....EVA/IVA TECHNOLOGY
**** WASTE 'SOURCE NO. 4 .... PRCTECTIVE CLOTHING AND ADVANCED SPACE S
                          ULT ASSEMBLY DEVELOPMENT
**** WASTE ITEM NO. 13 .... WATER (SUIT COOLANT)
         STATE ..... LIQUID
         DENSITY ..... 62.40 LES/CU. Fl.
         ATTRIBUTES ..... VAPOR
         ELEMENTS PRESENT ..
         COMPOSITION .... WATER
                                        QUANTITY (LBS)
         GENERATION DATA ...
                  EXPT. TOTAL
                                          4.00
                  DAILY RATE
                                          0.00
                  BATCH SIZE
                                          2.00
         RECLAMATION ACTION .. N/R
**** * WASTE ITEM NO. 14 .... WATER (FORMED)
         STATE ..... LIQUID
         DENSITY ..... 62.40 LBS/CU. FT.
         ATTRIBUTES .... VAPOR
         FLEMENTS PRESENT ..
         CCMPOSITION ..... WATER
         GENERATION DATA ...
                                        QUANTITY (LBS)
                  EXPT. TOTAL
                                          0.65
                  DAILY RATE
                                           0.00
                  BATCH SIZE
                                           0.03
         RECLAMATION ACTION .. DESORB
***** WASTE ITEM NO. 15 .... QUESTIONNAIRE
         STATE ..... SOLID
         DENSITY ..... 72.00 LBS/CU. FT.
         ATTRIBUTES ..... SHEET
         ELEMENTS PRESENT ..
         COMPOSITION ..... CELLULOSE
         GENERATION DATA ...
                                        QUANTITY (LBS)
                  EXPT. TOTAL
                                          0.30
                  DAILY RATE
                                           0.00
                  BATCH SIZE
                                           0.01
         RECLAMATION ACTION .. N/R
```

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S/C SUBSYSTEM .... MAN SYSTEMS INTEGRATION (A)
   GROUP KEY ..... 3.5.2
** EQUIPMENT/EXPERIMENT NO. 2 .....EVA/IVA TECHNOLCGY
**** WASTE SOURCE NO. 4 .... PROTECTIVE CLOTHING AND ADVANCED SPACE S
                           UIT ASSEMBLY DEVELOPMENT
<u>***</u>
**** ** WASTE ITEM NO. 16 .... GASES FOR G.C. CARRIER
         STATE GASONO GAS
         DENSITY ..... 0.05 LBS/CU. FT.
         ATTRIBUTES .....
         ELEMENTS PRESENT .. No Ho HEO A
         COMPOSITION .....
         GENERATION DATA ...
                                         QUANTITY (LBS)
                  EXPT. TOTAL
                                           12.00
                  DAILY RATE
                                           0.00
                  BATCH SIZE
                                            0.60
         RECLAMATION ACTION ...
**** WASTE ITEM NO. 17 .... SUPPORT FOR G.C.
         STATE ..... SOLID
         DENSITY ........... 156.00 LBS/CU. FT.
         ATTRIBUTES ..... PARTICLES
         ELEMENTS PRESENT .. SI
         COMPOSITION ..... FE203, AL203
         GENERATION DATA ...
                                         QUANTITY (LBS)
                  EXPT. TOTAL
                                            3.00
                  DAILY RATE
                                            0.00
                  BATCH SIZE
                                            0.15
         RECLAMATION ACTION .. DESORB ADSORBATES
***** WASTE ITEM NO. 18 .... MOLECULAR SIEVE FOR N&O SEPARATION
         STATE ..... SOLID
         DENSITY ...... 162.80 LBS/CU. FT.
         ATTRIBUTES ..... CHEMICALS
         ELEMENTS PRESENT .. NA, AL
         COMPOSITION ..... SI308
                                         QUANTITY (LBS)
         GENERATION DATA ...
                  EXPT. TOTAL
                                            2.00
                  DAILY RATE
                                            0.00
                  BATCH SIZE
                                            0.10
```

RECLAMATION ACTION .. REACTIVATE

S/C SUBSYSTEM MAN SYSTEMS INTEGRATION (A) 3ROUP KEY 3.5.2

**** WASTE SOURCE NO. 5 I.V.A. SUIT (PARTIAL PRESSURE)

DOCUMENT NO. 3.5.2.2.5

REFERENCE NO. 1 .. DAVIES, J.C. ET AL. PRELIMINARY STUDIES GN A NEW PARTIAL PRESSURE SUIT CONCEPT. SAM-TR-67-15 USAFSAM, FEBRUARY 1967

REFERENCE NO. 2 .. MCGUIRE T.F. ET AL, CARDIOVASCULAR EFFEC TS CF BREATHING AGAINST UNBALANCED ATMOS PHERIC PRESSURES JOUR AV. MED. 163 1209 -1213, 1957.

REFERENCE NO. 3 .. INTRAVEHICULAR ACTIVITY SPACE SUIT, NASA CR 108278.

**** WASTE ITEM NO. 1 ... FILM CINE

STATE SOLID

DENSITY 83.00 LBS/CU. FT.

ATTRIBUTES PLASTIC

ELEMENTS PRESENT ...

COMPOSITION ACLAR AGI

GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 3.00
DAILY RATE 0.00

BATCH SIZE 0.03

RECLAMATION ACTION .. N/R

**** WASTE ITEM NO. 2 DOSIMETER - CHEMICAL

STATE LIQUID

DENSITY 131.00 LBS/CU. FT.

ATTRIBUTES CHEMICAL

ELEMENTS PRESENT ...

COMPOSITION FE2(SO4)3

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.20
DAILY RATE 0.00
BATCH SIZE 0.00

```
S/C SUBSYSTEM .... MAN SYSTEMS INTEGRATION (A)
    GROUP KEY .... 3.5.2
** EQUIPMENT/EXPERIMENT NO. 2 ......EVA/IVA TECHNOLOGY
**** WASTE SOURCE NO. 5 .... I.V.A. SUIT (PARTIAL PRESSURE)
**** **********************
***** WASTE ITEM NO. 3 .... DOSIMETER - THERMOLUMINESCENT
         STATE ..... SCLID
         DENSITY ...... 138.00 LBS/CU. FT.
         ATTRIBUTES ..... CHEMICAL
         ELEMENTS PRESENT .. LI, F
         CCMPOSITION .....
                                            QUANTITY (LBS)
          GENERATION DATA ...
                   EXPT. TOTAL
                                              0.30
                   DAILY RATE
                                              0.00
                   BATCH SIZE
                                              0.00
         RECLAMATION ACTION .. N/R
**** WASTE ITEM NO. 4 ... DOSIMETER - RADIOLUMINESCENT
          STATE ..... SOLID
          DENSITY ...... 397.50 LBS/CU. FT.
          ATTRIBUTES .... GLASS
          ELEMENTS PRESENT ..
          COMPOSITION ..... AG3PO4
          GENERATION DATA ....
                                            QUANTITY (LBS)
                   EXPT. TOTAL
                                               0.20
                   DAILY RATE
                                               0.00
                   BATCH SIZE
                                               0.00
          RECLAMATION ACTION .. N/R
*** WASTE ITEM NO. 5 ... RECORDING TAPE
          STATE ..... SOLID
          DENSITY ...... 105.00 LBS/CU. FT.
          ATTRIBUTES .... PLASTIC
          ELEMENTS PRESENT ..
          COMPOSITION .... ACLAR AGI
          GENERATION DATA ...
                                            QUANTITY (LBS)
                   EXPT. TOTAL
                                               0.30
                    DAILY RATE
                                               0.00
                                               0.00
                    BATCH SIZE
          RECLAMATION ACTION .. ERASE
```

```
S/C SUBSYSTEM ..... MAN SYSTEMS INTEGRATION (A)
    3ROUP KEY .... 3.5.2
** EQUIPMENT/EXPERIMENT NO. 2 .....EVA/IVA TECHNOLOGY
**** WASTE SOURCE NO. 5 .... I.V.A. SUIT (PARTIAL PRESSURE)
<del>፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟</del>
***** WASTE ITEM NO. 6 .... DATA SHEETS
         STATE .... SOLID
         DENSITY ..... 72.00 LBS/CU. FT.
         ATTRIBUTES .... PAPER
         ELEMENTS PRESENT ..
         COMPOSITION ..... CELLULOSE
         GENERATION DATA ...
                                          QUANTITY (LBS)
                  EXPT. TOTAL
                                             0.40
                   DAILY RATE
                                             0.00
                   BATCH SIZE
                                             0.00
         RECLAMATION ACTION .. N/R
******* WASTE ITEM NO。 7 .... SUIT COMPONENTS
         STATE ..... SOLID
         DENSITY ..... 14.00 LBS/CU. FT.
         ATTRIBUTES ..... METAL, PLASTIC
         ELEMENTS PRESENT ...
         COMPOSITION .... VARIED
                                          QUANTITY (LBS)
         GENERATION DATA ...
                   EXPT. TOTAL
                                             7.60
                 DATLY RATE
                                             0.00
                   BATCH STZE
                                             0.08
         RECLAMATION ACTION .. SALVAGE
**** WASTE ITEM NO. 8 .... OZ IN P.P.L.S.
         STATE ..... GAS
         DENSITY ..... C.09 LBS/CU. FT.
         ATTRIBUTES ..... COMPRESSED
         ELEMENTS PRESENT .. 02
         COMPOSITION .....
                                          QUANTITY (LBS)
         GENERATION DATA ...
                  EXPT. TOTAL
                                             1.00
                  DAILY RATE
                                             0.00
                   BATCH SIZE
                                             0.01
         RECLAMATION ACTION ...
```

S/C SUBSYSTEM MAN SYSTEMS INTEGRATION (A) 3ROUP KEY 3.5.2

**** WASTE ITEM NO. 9 LIOH ABSORBER (CO2)

STATE SOLID

DENSITY 28.00 LBS/CU. FT.

ATTRIBUTES POWDER

FLEMENTS PRESENT ...

COMPOSITION LICH

GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 4.00

DAILY RATE 0.00
BATCH SIZE 1.00

RECLAMATION ACTION .. N/R

**** WASTE ITEM NO. 10 LEAK TESTER CONTENTS

STATE SOLID

DENSITY 107.00 LBS/CU. FT. ATTRIBUTES GLASS, CHEMICALS

ELEMENTS PRESENT ...

COMPOSITION VARIED

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 6.00
DAILY RATE - 0.00
BATCH SIZE 0.06

RECLAMATION ACTION .. REPLENISH CHEMICALS

S/C SUBSYSTEM MAN SYSTEMS INTEGRATION (B) 3ROUP KEY 3.5.2

** EQUIPMENT/EXPERIMENT NO. 3 MAINTENANCE AND MAINTAINABILITY

ASSOCIATED FPE NUMBER ...
S/C AREAS VARIOUS AREAS
ALL AREAS

*** WASTE SOURCE NO. 1 ACCESSIBILITY

DOCUMENT NO. 3.5.2.3.1

REFERENCE NO. 1 .. EXPERIMENT PROGRAM FOR EXTENDED EARTH OR BITAL MISSIONS, REVISION NO. 1, SEPTEMBE R 1,1969, NASA OMSF.

REFERENCE NO. 2 .. MISSION AND EXPERIMENT PROGRAM REQUIREME NTS FOR A ONE-YEAR SPACE STATION, GEORGE C. MARSHALL SPACE FLIGHT CENTER, FEBRUA RY 1967.

REFERENCE NO. 3 .. MANNED SPACE FLIGHT EXPERIMENT SUMMARY.

GEORGE C. MARSHALL SPACE FLIGHT CENTER,

FEBRUARY 1967.

**** WASTE ITEM NO. 1 RECORDING TAPE

STATE SOLID

DENSITY 105.00 LBS/CU. FT.

ATTRIBUTES PLASTIC TAPE

ELEMENTS PRESENT .. FE ,02

COMPOSITION MYLAR, POLYETHYLENE, TEREPHTHALATE RESIN

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 15.00
DAILY RATE 0.00

BATCH SIZE 0.00

RECLAMATION ACTION .. ERASE

***** WASTE ITEM NO. 2 FILM, STILL, CINE

STATE SOLID

DENSITY 83.00 LBS/CU. FT.

ATTRIBUTES PLASTIC STRIP

ELEMENTS PRESENT .. AG , I COMPOSITION ACLAR

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.25
DAILY RATE 0.00
BATCH SIZE 0.00

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S/C SUBSYSTEM .... MAN SYSTEMS INTEGRATION (B)
   GROUP KEY .... 3.5.2
** E JUIPMENT/EXPERIMENT NO. 3 ..... MAINTENANCE AND MAINTAINABILITY
**** WASTE SOURCE NO. 1 ... ACCESSIBILITY
***** WASTE ITEM NO. 3 .... DATA SHEETS
        STATE ..... SOLID
        DENSITY ..... 72.00 LBS/CU. FT.
        ATTRIBUTES .... PAPER
        FLEMENTS PRESENT ..
        COMPOSITION ..... CELLULOSE
                                       QUANTITY (LBS)
        GENERATION DATA ...
                 EXPT. TOTAL
                                         0.05
                 DAILY RATE
                                         0.00
                 BATCH SIZE
                                         0.00
        RECLAMATION ACTION .. N/R
***** WASTE ITEM NO. 4 .... RECORDING DATA SHEETS
        STATE ..... SOLID
        DENSITY ..... 72.00 LBS/CU. FT.
        ATTRIBUTES .... PAPER
        ELEMENTS PRESENT ..
        COMPOSITION ..... CELLULOSE
                                       QUANTITY (LBS)
        GENERATION DATA ...
                 EXPT. TOTAL
                                         0.50
```

0.00

0.01

RECLAMATION ACTION .. N/R

```
***** WASTE ITEM NO. 5 .... INSTRUMENTATION
         STATE ..... SOLID
         DENSITY .....
                             0.17 LBS/CU. FT.
         ATTRIBUTES .....
         ELEMENTS PRESENT ..
         COMPOSITION ..... VARIED
         GENERATION DATA ...
                                           QUANTITY (LBS)
                   EXPT. TOTAL
                                              5.00
                   DAILY RATE
                                              0.00
                   BATCH SIZE
                                             0.10
         RECLAMATION ACTION .. REPAIR
```

DAILY RATE

BATCH SIZE

S/C SUBSYSTEM MAN SYSTEMS INTEGRATION (B) GROUP KEY 3.5.2

** EQUIPMENT/EXPERIMENT NO. 3MAINTENANCE AND MAINTAINABILITY

**** WASTE SOURCE NO. 2 MAINTENANCE AND REPAIR IN ZERO G

DOCUMENT NO. 3.5.2.3.2

REFERENCE NO. 1 .. EXPERIMENT PROGRAM FOR EXTENDED EARTH OR BITAL MISSIONS, REVISION NO. 1, SEPTEMBE R 1, 1969, NASA DMSF.

REFERENCE NO. 2 .. REPORT ON THE DEV.OF THE MANNED ORBITAL RESEARCH LAB. (MORL) SYSTEM UTILIZATION P CTENTIAL.TASK AREA 1 ANALY.OF SPACERELAT ED OBJECT. BOOK 2 DOUGLAS REPT. SM48808.

***** WASTE ITEM NO. 1 FILM.STILL,CINE

STATE SOLID

DENSITY 83.00 LBS/CU. FT.

ATTRIBUTES PLASTIC STRIP

ELEMENTS PRESENT .. AG,1-COMPOSITION ACLAR

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 2.50
DAILY RATE - 0.00
BATCH SIZE 0.01

RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 2 DATA SHEETS

STATE SOLID

DENSITY 72.00 LBS/CU. FT.

ATTRIBUTES PAPER

ELEMENTS PRESENT ..

COMPOSITION CELLULOSE

GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.50
DAILY RATE 0.00

BATCH SIZE 0.00

```
S/C SUBSYSTEM .... MAN SYSTEMS INTEGRATION (B)
   3ROUP KEY .... 3.5.2
** EQUIPMENT/EXPERIMENT NO. 3 .....MAINTENANCE AND MAINTAINABILITY
**** WASTE SOURCE NO. 2 .... MAINTENANCE AND REPAIR IN ZERO G
***** WASTE ITEM NO. 3 .... EQUIPMENT
        STATE ..... SOLID
        DENSITY ..... 166.00 LBS/CU. FT.
        ATTRIBUTES .....
        ELEMENTS PRESENT ...
        COMPOSITION ..... VARIED
        GENERATION DATA ...
                                       QUANTITY (LBS)
                 EXPT. TOTAL
                                         5.00
                 DAILY RATE
                                         0.00
                 BATCH SIZE
                                         0.01
        RECLAMATION ACTION .. REPAIR
***** WASTE ITEM NO. 4 .... TEST SPECIMENS
        STATE ..... VARIED
        DENSITY ..... 166.00 LBS/CU. FT.
        ATTRIBUTES .... TBD
        ELEMENTS PRESENT ..
        COMPOSITION ..... VARIED-TBD
        GENERATION DATA ...
                                       QUANTITY (LBS)
                 EXPT. TOTAL
                                         20.00
                 DAILY RATE
                                          0.00
```

0.05

BATCH SIZE

RECLAMATION ACTION .. REPAIR, IF POSSIBLE

```
S/C SUBSYSTEM .... MAN SYSTEMS INTEGRATION (B)
   3ROUP KEY .... 3.5.2
** EQUIPMENT/EXPERIMENT NO. 4 ..... BEHAVIOR
         ASSCCIATED FPE NUMBER ...
         S/C AREAS ..... PSYCHOLOGY LABORATORY
                           CGNTROL
**** WASTE SOURCE NO. 1 .... INTRAPERSONAL FACTORS -
         DOCUMENT NO. ..... 3.5.2.4.1
         REFERENCE NO. 1 .. NATIONAL MULTIPURPOSE SPACE STATION, NAS
                           A MSC DECEMBER 1964.
         REFERENCE NO. 2 .. MEDICAL ASPECTS OF AN ORBITING RESEARCH
                           LABORATORY, NASA SPACE MEDICINE ADVISORY
                            GROUP. NASA REPORT NO.SP-86, 1966.
**** WASTE ITEM NO. 1 .... RECORDING TAPE
         STATE ..... SOLID
         DENSITY ..... 105.00 LBS/CU. FT.
         ATTRIBUTES .... PLASTIC TAPE
         ELEMENTS PRESENT .. FE,02
         COMPOSITION ..... MYLAR, POLYETHYLENE, TEREPHTHALATE RESIN
                                         QUANTITY (LBS)
         GENERATION DATA ...
                  EXPT. TOTAL
                                           1.00
                                           0.00
                  DAILY RATE
                  BATCH SIZE
                                           0.08
         RECLAMATION ACTION .. ERASE
**** WASTE ITEM NO. 2 ... DATA SHEETS
         STATE ..... SCLID
         DENSITY ..... 72.00 LBS/CU. FT.
         ATTRIBUTES .... PAPER
         ELEMENTS PRESENT ..
         COMPOSITION ..... CELLULOSE
         GENERATION DATA ...
                                         QUANTITY (LBS)
                  EXPT. TOTAL
                                           0.30
                  DAILY RATE
                                           0.00
```

0.00

BATCH SIZE

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```
S/C SUBSYSTEM .... MAN SYSTEMS INTEGRATION (B)
   GROUP KEY .... 3.5.2
** EJUIPMENT/EXPERIMENT NO. 4 .....BEHAVIOR
**** WASTE SOURCE NO. 1 .... INTRAPERSONAL FACTORS
***********************************
***** WASTE ITEM NO. 3 .... RECORDING DATA SHEETS
         STATE ..... SOLID
         DENSITY ..... 72.00 LBS/CU. FT.
         ATTRIBUTES .... PAPER
         ELEMENTS PRESENT ..
         CCMPOSITION .... CELLULDSE
         GENERATION DATA ...
                                         QUANTITY (LBS)
                  EXPT. TOTAL
                                           00 - 0
                  DAILY RATE
                                            0.00
                  BATCH SIZE
                                            0.00
         RECLAMATION ACTION .. N/R
****** WASTE ITEM NO. 4 .... PAPER (PAPER AND PEN TESTS)
         STATE ..... SOLID
         DENSITY ..... 72.00 LBS/CU. FT.
         ATTRIBUTES ..... SHEETS
         ELFMENTS PRESENT ..
         CCMPOSITION ..... CELLULOSE
         GENERATION DATA ...
                                         QUANTITY (LBS)
                  EXPT. TOTAL
                                           1.00
                  DAILY RATE
                                           0.00
                  BATCH SIZE
                                            0.08
         RECLAMATION ACTION .. N/R
     : WASTE ITEM NO. 5 .... CONTACT PASTE
         STATE ..... SEMI SOLID
         DENSITY ..... 53.00 LBS/CU. FT.
         ATTRIBUTES .... PASTE
         ELEMENTS PRESENT .. K, CL
         COMPOSITION .....
         GENERATION DATA ...
                                         QUANTITY (LBS)
                  EXPT. TOTAL
                                            0.25
                  DAILY RATE
                                            0.00
                  BATCH SIZE
                                            0.02
```

RECLAMATION ACTION .. COLLECT REHYDRATE

S/C SUBSYSTEM MAN SYSTEMS INTEGRATION (B) JROUP KEY 3.5.2

**** WASTE ITEM NO. 6 INSTRUMENTS

STATE SOLID

DENSITY 166.00 LBS/CU. FT.

ATTRIBUTES GLASS, METAL ELEMENTS PRESENT .. SI, 02, FE, C

COMPOSITION CALCMEL

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 1.00
DAILY RATE 0.00
BATCH SIZE 0.08

RECLAMATION ACTION .. REPAIR

```
S/C SUBSYSTEM .... MAN SYSTEMS INTEGRATION (B)
    GROUP KEY .... 3.5.2
** FJUIPMENT/EXPERIMENT NO. 4 ....BEHAVIOR
**** WASTE SOURCE NO. 2 .... VISUAL FUNCTION
         DOCUMENT NO. ..... 3.5.2.4.2
**** WASTE ITEM NO. 1 .... RECORDING TAPE
         STATE ..... SOLID
         DENSITY ..... 105.00 LBS/CU. FT.
         ATTRIBUTES .... PLASTIC TAPE
         ELFMENTS PRESENT .. FE, D2
         COMPOSITION ..... MYLAR, POLYETHYLENE, TEREPHTHALATE RESIN
         GENERATION DATA ...
                                        QUANTITY (LBS)
                  EXPT. TOTAL
                                           2.00
                  DAILY RATE
                                           0.00
                  BATCH SIZE
                                           0.11
         RECLAMATION ACTION .. ERASE
***** WASTE ITEM NO. 2 .... FILM, STILL, CINE
         STATE ..... SOLID
         DENSITY ..... 83.00 LBS/CU. FT.
         ATTRIBUTES ..... PLASTIC STRIP
         ELEMENTS PRESENT .. AG, I
         COMPOSITION ..... ACLAR
                                         QUANTITY (LBS)
         GENERATION DATA ...
                  EXPT. TOTAL
                                           0.25
                  DAILY RATE
                                           0.00
                  BATCH SIZE
                                           0.01
         RECLAMATION ACTION .. N/R
**** ** WASTE ITEM NO. 3 .... CATA SHEETS
         STATE ..... SOLID
         DENSITY ..... 72.00 LBS/CU. FT.
         ATTRIBUTES .... PAPER -
         ELEMENTS PRESENT ..
         CCMPOSITION ..... CELLULOSE
                                         QUANTITY (LBS)
         GENERATION DATA ...
                  EXPT. TOTAL
                                           0.05
                  DAILY RATE
                                           0.00
                                           0.00
                  BATCH SIZE
```

S/C SUBSYSTEM MAN SYSTEMS INTEGRATION (B) 3ROUP KEY 3.5.2 ** EQUIPMENT/EXPERIMENT NO. 4BEHAVIOR **** WASTE SOURCE NO. 2 VISUAL FUNCTION **** WASTE ITEM NO. 4 QUESTIONNAIRES STATE SOLID DENSITY 72.00 LBS/CU. FT. ATTRIBUTES PAPER ELFMENTS PRESENT .. CCMPOSITION CELLULOSE GENERATION DATA ... QUANTITY (LBS) EXPT. TOTAL 0.03 DAILY RATE 0.00 BATCH SIZE 0.00 RECLAMATION ACTION .. N/R ****** WASTE ITEM NO. 5 RECORDING DATA SHEETS STATE SOLID DENSITY 72.00 LBS/CU. FT. ATTRIBUTES PAPER ELEMENTS PRESENT .. COMPOSITION CELLULOSE GENERATION DATA ... QUANTITY (LBS) EXPT. TOTAL DAILY RATE 0.05 0.00 SATCH SIZE 0.00 RECLAMATION ACTION ... N/R **** WASTE ITEM NO. 6 INSTRUMENTATION STATE SOLID DENSITY 166.00 LBS/CU. FT. ATTRIBUTES GLASS, METAL ELEMENTS PRESENT .. SI, DZ, FE, C, AL CCMPOSITION QUANTITY (LBS) GENERATION DATA ... EXPT. TOTAL 5.00 DATLY RATE 0.00 BATCH SIZE 0.30 RECLAMATION ACTION .. REPAIR

S/C SUBSYSTEM MAN SYSTEMS INTEGRATION (B) 3ROUP KEY 3.5.2

**** WASTE SOURCE NO. 3 COMMUNICATIONS AND RECORDING

DOCUMENT NO. 3.5.2.4.3

REFERENCE NO. 1 .. NASA EXPERIMENT DESCRIPTIONS FOR EXTENDE D APOLLO EARTH-ORBIT FLIGHTS. NASA HEADQ UARTERS, WASHINGTON, D.C., MARCH 1965.

REFERENCE NO. 2 .. EXPERIMENT PROGRAM FOR EXTENDED EARTH OR BITAL MISSIONS, REVISION NO.1 SEPTEMBER 1, 1969, NASA OMSF.

REFERENCE NO. 3 .. MISSION AND EXPERIMENT PROGRAM REQUIREME NTS FOR A ONE-YEAR SPACE STATION, GFORGE C. MARSHALL SPACE FLIGHT CENTER, FEBRUA RY 1967.

**** WASTE ITEM NO. 1 ... RECORDING TAPE

STATE SOLID

DENSITY 105.00 LBS/CU. FT.

ATTRIBUTES PLASTIC TAPE

ELEMENTS PRESENT .. FE,02

COMPOSITION MYLAR, POLYETHYLENE, TEREPHTHALATE RESIN

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 2.00
- DAILY RATE 0.00
BATCH SIZE 0.11

RECLAMATION ACTION .. ERASE

***** WASTE ITEM NO. 2 FILM, STILL, CINE

STATE SOLID

DENSITY 83.00 LBS/CU. FT.

ATTRIBUTES PLASTIC STRIP

ELEMENTS PRESENT .. AG, I COMPOSITION ACLAR

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.25
DAILY RATE 0.00
BATCH SIZE 0.01

```
S/C SUBSYSTEM .... MAN SYSTEMS INTEGRATION (B)
   GROUP KEY .... 3.5.2
** EJUIPMENT/EXPERIMENT NO. 4 .....BEHAVIOR
**** WASTE SOURCE NO. 3 .... COMMUNICATIONS AND RECORDING
**** ** WASTE ITEM NO. 3 .... DATA SHEETS
         STATE .... SOLID
         DENSITY ..... 72.00 LBS/CU. FT.
         ATTRIBUTES .... PAPER
         ELEMENTS PRESENT ..
         COMPOSITION ..... CELLULOSE
         GENERATION DATA ...
                                        QUANTITY (LBS)
                  EXPT. TOTAL
                                          0.05
                 DAILY RATE
                                          0.00
                                          0.00
                  BATCH SIZE
         RECLAMATION ACTION .. N/R
***** WASTE ITEM NO. 4 .... QUESTIONNAIRES
         STATE ..... SOLID
         DENSITY ..... 72.00 LBS/CU. FT.
         ATTRIBUTES .... PAPER
         ELEMENTS PRESENT ..
         COMPOSITION ..... CELLULOSE
         GENERATION DATA ...
                                        QUANTITY (LBS)
                 EXPT. TOTAL
                                          0.03
                 DAILY RATE
                                          0.00
                  BATCH SIZE
                                          0.00
         RECLAMATION ACTION .. N/R
***** WASTE ITEM NO. 5 ... RECORDING DATA SHEETS
         STATE ..... SOLID
         DENSITY ..... 72.00 LBS/CU. FT.
         ATTRIBUTES .... PAPER
         ELEMENTS PRESENT ..
         COMPOSITION ..... CELLULOSE
         GENERATION DATA ...
                                        QUANTITY {LBS}
                  EXPT. TOTAL
                                          0.05
                  DAILY RATE
                                          0.00
                  BATCH SIZE
                                          0.00
         RECLAMATION ACTION .. N/R
```

S/C SUBSYSTEM MAN SYSTEMS INTEGRATION (B) 3ROUP KEY 3.5.2

** EQUIPMENT/EXPERIMENT NO. 4BEHAVIOR

**** WASTE SOURCE NO. 3 COMMUNICATIONS AND RECORDING

**** WASTE ITEM NO. 6 ... PAPER (PAPER AND PEN TESTS)

STATE SOLID

DENSITY 72.00 LBS/CU. FT.

ATTRIBUTES PAPER

ELEMENTS PRESENT ..

COMPOSITION CELLULOSE

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.03
DAILY RATE 0.00
BATCH SIZE 0.00

RECLAMATION ACTION .. N/R

**** WASTE ITEM NO. 7 INSTRUMENTATION

STATE SOLID

DENSITY 166.00 LBS/CU. FT.

ATTRIBUTES

ELEMENTS PRESENT ...

COMPOSITION VARIED

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 3.00
DAILY RATE 0.00
BATCH SIZE 0.17

RECLAMATION ACTION .. REPAIR

```
S/C SUBSYSTEM .... MAN SYSTEMS INTEGRATION (B)
   GROUP KEY .... 3.5.2
** EQUIPMENT/EXPERIMENT NO. 4 .....BEHAVIOR
**** WASTE SOURCE NO. 4 .... KINESTHETIC FUNCTION
         DOCUMENT NO. ..... 3.5.2.4.4
         REFERENCE NO. I .. NASA EXPERIMENT DESCRIPTIONS FOR EXTENDE
                          D APOLLO FARTH-ORBIT FLIGHTS. NASA HEADO
                           UARTERS, WASHINCTON, D.C., MARCH 1965.
         REFERENCE ND.
                      2 .. EXPERIMENT PROGRAM FOR EXTENDED EARTH OR
                           BITAL MISSIONS, REVISION NO.1 SEPTEMBER
                           1, 1969, NASA DMSF.
         REFERENCE NO. 3 .. EXPERIMENT SELECTION AND DEFINITION FOR
                           SIVB APPLICATIONS, DEUGLAS REPORT NO. SM
                           60569, DECEMBER 1966.
**** WASTE ITEM NO. 1 .... RECORDING TAPE
```

***** WASTE ITEM NO. 1 RECORDING TAPE

STATE SOLID

DENSITY 105.00 LBS/CU. FT.

ATTRIBUTES PLASTIC TAPE

ELFMENTS PRESENT .. FE,02

COMPOSITION MYLAR, POLYETHELENE, TEREPHTHALATE RESIN

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 1.00

DAILY RATE 0.00

BATCH SIZE 0.08

RECLAMATION ACTION .. ERASE

****** WASTE ITEM NO. 2 FILM,STILL,CINE
STATE SOLID
DENSITY 83.00 LBS/CU. FT.
ATTRIBUTES PLASTIC STRIP
ELEMENTS PRESENT .. AG,I
COMPOSITION ACLAR
GENERATION DATA QUANTITY (LBS)

EXPT. TOTAL 0.20
DAILY RATE 00
BATCH SIZE 02

```
S/C SUBSYSTEM .... MAN SYSTEMS INTEGRATION (B)
   GROUP KEY .... 3.5.2
** EQUIPMENT/EXPERIMENT NO. 4 .....BEHAVIOR
**** WASTE SOURCE NO. 4 .... KINESTHETIC FUNCTION
***** WASTE ITEM NO. 3 .... CATA SHEETS
        STATE ..... SOLID
        DENSITY ..... 72.00 LBS/CU. FT.
        ATTRIBUTES .... PAPER
        ELEMENTS PRESENT ..
        CCMPOSITION ..... CELLULOSE
        GENERATION DATA ...
                                        QUANTITY (LBS)
                 EXPT. TOTAL
                                          0.00
                 DAILY RATE
                                          0.00
                 BATCH SIZE
                                          0.00
        RECLAMATION ACTION .. N/R
***** WASTE ITEM NO. 4 ... QUESTIONNAIRES
        STATE ..... SOLID
        DENSITY ..... 72.00 LBS/CU. FT.
        ATTRIBUTES .... PAPER
         ELEMENTS PRESENT ..
        CCMPOSITION ..... CELLULOSE
        GENERATION DATA ...
                                        QUANTITY (LBS)
                 EXPT. TOTAL
                                          0.03
                 DAILY RATE
                                          0.00
                 BATCH SIZE
                                          0.00
        RECLAMATION ACTION .. N/R
***** WASTE ITEM NO. 5 .... RECORDING DATA SHEETS
         STATE ..... SOLID
        DENSITY ..... 72.QO LBS/CU. FT.
        ATTRIBUTES .... PAPER
         ELEMENTS PRESENT ...
        COMPOSITION ..... CELLULOSE
                                        QUANTITY (LBS)
         GENERATION DATA ...
                 EXPT. TOTAL
                                          0.02
```

0.00

0.00

DAILY RATE

BATCH SIZE

RECLAMATION ACTION .. REPAIR

S/C SUBSYSTEM MAN SYSTEMS INTEGRATION (B) GROUP KEY 3.5.2 ** EQUIPMENT/EXPERIMENT NO. 4BEHAVIOR **** WASTE SOURCE NO. 4 ... KINESTHETIC FUNCTION ***** WASTE ITEM NO. 6 ELECTRODE PASTE STATE SEMI-SOLID DENSITY 53.00 LBS/CU. FT. ATTRIBUTES ELEMENTS PRESENT .. K.CL COMPOSITION GENERATION DATA ... QUANTITY (LBS) EXPT. TOTAL 0.50 DAILY RATE 0.00 BATCH SIZE 0.04 RECLAMATION ACTION .. COLLECT-REHYDRATE ***** WASTE ITEM NO. 7 INSTRUMENTATION STATE SOLID DENSITY 166.00 LBS/CU. FT. ATTRIBUTES **ELEMENTS PRESENT ..** COMPOSITION VARIED GENERATION DATA ... QUANTITY (LBS) EXPT. TOTAL DAILY RATE 3.00 0.00 BATCH SIZE 0.24

```
S/C SUBSYSTEM .... MAN SYSTEMS INTEGRATION (B)
   GROUP KEY .... 3.5.2
** E JUIPMENT/EXPERIMENT NO. 4 .....BEHAVIOR
**** WASTE SOURCE NO. 5 .... GRIENTATION SENSES
         DOCUMENT NO. ..... 3.5.2.4.5
         REMARKS ( 1) ..... FOR OPERATIONAL DESCRIPTION SEE DOCUMENT
                            NC. A-3.5.2.4.4
***** WASTE ITEM NO. 1 .... RECORDING TAPE
         STATE ..... SOLID
         DENSITY ...... 105.00 LBS/CU. FT.
         ATTPIBUTES .... PLASTIC TAPE
         ELEMENTS PRESENT .. FE . 02
         COMPOSITION ..... MYLAR, POLYETHYLENE, TEREPATHALATE RESIN
         GENERATION DATA ...
                                         QUANTITY (LBS)
                  EXPT. TOTAL
                                           1.00
                  DAILY RATE
                                           0.00
                  BATCH SIZE
                                           0.08
         RECLAMATION ACTION .. ERASE
***** WASTE ITEM NO. 2 .... FILM, STILL, CINE
         STATE ..... SOLID
         DENSITY ..... 83.00 LBS/CU. FT.
         ATTRIBUTES ..... PLASTIC STRIP
         ELEMENTS PRESENT .. AG.I
         COMPOSITION ..... ACLAR
         GENERATION DATA ...
                                         QUANTITY (LBS)
                  EXPT. TOTAL
                                           0.12
                  DAILY RATE
                                           0.00
                  BATCH SIZE
                                           0.01
         RECLAMATION ACTION .. N/R
***** WASTE ITEM NO. 3 ... DATA SHEETS
         STATE ..... SOLID
         DENSITY ..... 72.00 LBS/CU. FT.
         ATTRIBUTES ..... PAPER
         FLEMENTS PRESENT ..
         COMPOSITION ..... CELLULOSE
         GENERATION DATA ...
                                         QUANTITY (LBS)
                  EXPT. TOTAL
                                           0.02
                  DAILY RATE
                                           0.00
                  BATCH SIZE
                                           0.00
```

S/C SUBSYSTEM MAN SYSTEMS INTEGRATION' (B) 3ROUP KEY 3.5.2 ** E JUIPMENT/EXPERIMENT NO. 4BEHAVIOR **** WASTE SOURCE NO. 5 ORIENTATION SENSES ***** WASTE ITEM NO. 4 QUESTIONNAIRS STATE SOLID DENSITY 72.00 LBS/CU. FT. ATTRIBUTES PAPER ELEMENTS PRESENT .. COMPOSITION CELLULOSE GENERATION DATA ... QUANTITY (LBS) EXPT. TOTAL 0.01 DAILY RATE 0.00 BATCH SIZE 0.00 RECLAMATION ACTION ... N/R ***** WASTE ITEM NO. 5 RECORDING DATA SHEETS STATE SOLID DENSITY 72.00 LBS/CU. FT. ATTRIBUTES PAPER ELEMENTS PRESENT ... COMPOSITION CELLULOSE GENERATION DATA ... QUANTITY (LBS) EXPT. TOTAL DAILY RATE 0.02 0.00 BATCH SIZE 0.00 RECLAMATION ACTION .. N/R ***** WASTE ITEM NO. 6 INSTRUMENTS STATE SOLID DENSITY 166.00 LBS/CU. FT. ATTRIBUTES **ELEMENTS PRESENT ..** COMPOSITION VARIED GENERATION DATA ... QUANTITY (LBS) EXPT. TOTAL 1.50 DAILY RATE 0.00 BATCH SIZE 0.13

RECLAMATION ACTION .. REPAIR

```
S/C SUBSYSTEM .... MAN SYSTEMS INTEGRATION (B)
   GROUP KEY ..... 3.5.2
** EQUIPMENT/EXPERIMENT NO. 4 .....BEHAVIOR
**** WASTE SOURCE NO. 6 ... CHEMICAL SENSE FUNCTION
         DOCUMENT NO. ..... 3.5.2.4.6
         REFERENCE NO. 1 .. EXPERIMENT PROGRAM FOR EXTENDED EARTH OR
                           BITAL MISSIONS, REVISION NO. 1, SEPTEMBE
                           R 1,1969, NASA OMSF.
***** WASTE ITEM NO. 1 .... RECORDING TAPE
         STATE ..... SOLID
         DENSITY ..... 105.00 (BS/CU. FT.
         ATTRIBUTES ..... PLASTIC TAPE
         ELEMENTS PRESENT .. FE,02
         COMPOSITION ..... MYLAR, POLYETHYLENE, TEREPHTHALATE RESIN
         GENERATION DATA ...
                                        QUANTITY (LBS)
                  EXPT. TOTAL
                                           1.00
                  DAILY RATE
                                           0.00
                  BATCH SIZE
                                           0.08
         RECLAMATION ACTION .. ERASE
***** WASTE ITEM NO. 2 .... DATA SHEETS
         STATE ..... SOLID
         DENSITY ..... 72.00 LBS/CU. FT.
         ATTRIBUTES .... PAPER
         ELEMENTS PRESENT ..
         COMPOSITION ..... CELLULOSE
         GENERATION DATA ...
                                        QUANTITY (LBS)
                  EXPT. TOTAL
                                           0.10
                  DAILY RATE
                                           0.00
                  BATCH SIZE
                                           0.01
         RECLAMATION ACTION .. N/R
**** WASTE ITEM NO. 3 ... OLFACTORY AEROSOLS
         STATE ..... GAS/LIQUID
         DENSITY ..... 62.40 LBS/CU. FT.
         ATTRIBUTES .....
         ELEMENTS PRESENT ..
```

COMPOSITION VARIED GENERATION DATA ... QUANTITY (LBS) EXPT. TOTAL 10.00 DAILY RATE 0.00 BATCH SIZE 0.80 RECLAMATION ACTION .. N/R (TRAP)

```
S/C SUBSYSTEM .... MAN SYSTEMS INTEGRATION (B)
   GROUP KEY .... 3.5.2
** EQUIPMENT/FXPERIMENT NO. 4 .....BEHAVIGR
**** WASTE SOURCE NO. 6 .... CHEMICAL SENSE FUNCTION
**********************
***** WASTE ITEM NO. 4 .... GUSTATORY SOLUTIONS
         STATE .... LICUID
         DENSITY ..... 65.00 LBS/CU. FT.
         ATTRIBUTES .....
         ELEMENTS PRESENT ..
         CDIRAY ..... NOITIZCOMOD
         GENERATION DATA ...
                                         QUANTITY (LBS)
                  EXPT. TOTAL
                                            3.00
                  DAILY RATE
                                            0.00
                  BATCH SIZE
                                            0.25
         RECLAMATION ACTION .. N/R
***** WASTE ITEM NO. 5 ... DEIONIZED STERILE WATER
         STATE ..... SOLID
         DENSITY ...... 75.00 LBS/CU. FT.
         ATTRIBUTES ..... PLASTIC
         ELEMENTS PRESENT .. CL
         COMPOSITION ..... COPOLYVINYL ACETATE
         GENERATION DATA ...
                                         QUANTITY (LBS)
                 EXPT. TOTAL
                                            2.00
                  DAILY RATE
                                            0.00
                  BATCH SIZE
                                            0.16
         RECLAMATION ACTION .. N/R
***** WASTE ITEM NO. 6 ... MICROSYRINGES
         STATE .....
         DENSITY .....
                            0.00 LBS/CU. FT.
         ATTRIBUTES ......
         FLEMENTS PRESENT ..
         COMPOSITION .....
         GENERATION DATA ...
                                         QUANTITY (LBS)
                  EXPT. TOTAL DAILY RATE
                                            0.00
                                            0.00
                                            0.00
                  BATCH SIZE
         RECLAMATION ACTION ..
```

S/C SUBSYSTEM MAN SYSTEMS INTEGRATION (B) 3ROUP KEY 3.5.2

** E QUIPMENT/EXPER IMENT NO. 4BEHAVIOR

**** WASTE SOURCE NO. 7 SOMESTHETIC FUNCTION

DOCUMENT NO. 3.5.2.4.7

PEFERENCE NO. 1 .. EXPERIMENT PROGRAM FOR EXTENDED EARTH OR BITAL MISSIONS, REVISION NO.1 SEPTEMBER 1. 1969, NASA OMSF.

REFERENCE NO. 2 .. SYMPOSIUM ON PSYCHOPHYSIOLOGICAL ASPECTS
OF SPACE FLIGHT, B. FLAHERTY EDITOR, CO
LUMBIA UNIVERSITY PRESS, NEW YORK, 1961.

*** * * WASTE ITEM NO. I ... RECORDING TAPE

STATE SOLID

DENSITY 105.00 LBS/CU. FT.

ATTRIBUTES PLASTIC TAPE

FLEMENTS PRESENT .. FE,02

CCMPOSITION MYLAR POLYETHYLENE TEREPHTHALATE RESIN

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 1.00
DAILY RATE 0.00
BATCH SIZE 0.06

RECLAMATION ACTION .. ERASE

***** WASTE ITEM NO. 2 DATA SHEETS

STATE SOLID

DENSITY 72.00 LBS/CU. FT.

ATTRIBUTES PAPER

ELEMENTS PRESENT ..

COMPOSITION CELLULOSE

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.03
DAILY RATE 0.00
BATCH SIZE 0.00

S/C SUBSYSTEM MAN SYSTEMS INTEGRATION (B) GROUP KEY 3.5.2

**** WASTE ITEM NO. 3 COTTON TUFFS

STATE SOLID

DENSITY 87.00 LBS/CU. FT.

ATTRIBUTES SOFT

ELEMENTS PRESENT ..

COMPOSITION CELLULOSE

GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 1.00

DAILY RATE 0.00
BATCH SIZE 0.06

RECLAMATION ACTION .. R/R

***** WASTE ITEM NO. 4 NEEDLES

STATE SOLID

DENSITY 488.00 LBS/CU. FT.

ATTRIBUTES STEEL' ELEMENTS PRESENT .. FE,C

COMPOSITION

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 1.00
DAILY RATE 0.00
BATCH SIZE 0.01

RECLAMATION ACTION .. CLEAN

S/C SUBSYSTEM MAN SYSTEMS INTEGRATION (B) 3ROUP KEY 3.5.2

**** WASTE SOURCE NO. 8 INTELLECTUAL FUNCTION

DOCUMENT NO. 3.5.2.4.8

REFERENCE NO. 1 .. EXPERIMENT PROGRAM FOR EXTENDED EARTH OR BITAL MISSIONS, REVISION NO.1 SEPTEMBER 1, 1969, NASA OMSF.

REFERENCE NO. 2 .. REPORT ON THE DEVELOPMENT OF THE MANNED ORBITAL RES.LAB. (MORL) SYST.UTILIZATION PCTENTIAL.TASK AREA 1 ANAL.OF SPACE REL.OBJECTIVES.BK 2.DOUGLAS REP. SM48808.SE

**** WASTE ITEM NO. 1 RECORDING TAPE

STATE SOLID

DENSITY 105.00 LBS/CU. FT.

ATTRIBUTES PLASTIC TAPE

ELEMENTS PRESENT .. FE,02

COMPOSITION MYLAR, POLYETHYLENE TEREPHTHALATE

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.50
DAILY RATE 0.00
BATCH SIZE 0.04

RECLAMATION ACTION .. ERASE

**** WASTE ITEM NO. 2 QUESTIONNAIRES

STATE SOLID

DENSITY 72.00 LBS/CU. FT.

ATTRIBUTES PAPER

FLEMENTS PRESENT ..

COMPOSITION CELLULOSE

GENERATION DATA ... QUANTITY (LBS)

EXPT. 10TAL 0.01
DAILY RATE 0.00
BATCH SIZE 0.00

S/C SUBSYSTEM MAN SYSTEMS INTEGRATION (B) GROUP KEY 3.5.2

** EQUIPMENT/EXPERIMENT NO. 4BEHAVIOR

**** WASTE SOURCE NO. 8 INTELLECTUAL FUNCTION

**** WASTE ITEM NO. 3 ... PAPER (PAPER & PEN TESTS)

STATE SOLID

DENSITY 72.00 LBS/CU. FT.

ATTRIBUTES PAPER

ELEMENTS PRESENT ..

COMPOSITION CELLULOSE

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.10
DAILY RATE 0.00
BATCH SIZE 0.01

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S/C SUBSYSTEM .... MAN SYSTEMS INTEGRATION (B) SROUP KEY .... 3.5.2
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**** WASTE SOURCE NO. 9 HIGHER MENTAL FUNCTION

DOCUMENT VO. 3.5.2.4.9

REFERENCE NO. 1 .. NASA EXPERIMENT DESCRIPTIONS FOR EXTENDE D APOLLO EARTH-ORBIT FLIGHTS. NASA HEADQ UARTERS, WASHINGTON, D.C., MARCH 1965.

REFERENCE NO. 2 .. EXPERIMENT PROGRAM FOR EXTENDED EARTH OR BITAL MISSIONS, REVISION NO.1 SEPTEMBER 1, 1969, NASA OMSF.

REFERENCE NO. 3 .. S.P. VINOGRAD, MEDICAL ASPECTS OF AN ORB ITING RESEARCH LABORATORY, SPACE MEDICAL ADVISORY GROUP STUDY, NASA REPORT NO. S P 86,1964.

***** WASTE ITEM NO. 1 ... RECORDING TAPE

STATE SOLID

DENSITY 105.00 LBS/CU. FT.

ATTRIBUTES PLASTIC TAPE

ELEMENTS PRESENT .. FE,02

CCMPOSITION MYLAR, POLYETHYLENE, TEREPHTHALATE RESIN

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 1.50
DAILY RATE 0.00

BATCH SIZE 0.12

RECLAMATION ACTION .. ERASE

***** WASTE ITEM NO. 2 DATA SHEETS

STATE SOLID

DENSITY 72.00 LBS/CU. FT.

ATTRIBUTES PAPER

ELEMENTS PRESENT ..

CCMPOSITION CELLULOSE

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.15 DAILY RATE 0.00 BATCH SIZE 0.01

S/C SUBSYSTEM MAN SYSTEMS INTEGRATION (B) GROUP KEY 3.5.2

** EQUIPMENT/EXPERIMENT NO. 4BEHAVIOR
**** WASTE SOURCE NO. 9 HIGHER MENTAL FUNCTION

**** WASTE ITEM NO. 3 ... TEST SHEETS (PAPER & PEN)

STATE SOLID

DENSITY 72.00 LBS/CU. FT.

ATTRIBUTES PAPER

ELEMENTS PRESENT ..

COMPOSITION CELLULOSE

GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.50

DAILY RATE 0.00
BATCH SIZE 0.04

RECLAMATION ACTION .. N/R

*** ** WASTE ITEM NO. 4 INSTRUMENTATION

STATE SOLID

DENSITY 166.00 LBS/CU. FT.

ATTRIBUTES

ELEMENTS PRESENT ..

COMPOSITION VARIED

GENERATION DATA ... QUANTITY (LPS)

EXPT. TOTAL 10.00 DAILY RATE 0.00 BATCH SIZE 0.80

RECLAMATION ACTION .. REPAIR

S/C SUBSYSTEM MAN SYSTEMS INTEGRATION (B) SROUP KEY 3.5.2

*** WASTE SOURCE NO. 10 AUDITORY FUNCTION

DOCUMENT NO. 3.5.2.4.10

REFERENCE NO. 1 .. NASA EXPERIMENT DESCRIPTIONS FOR EXTENDED APOLLO EARTH-ORBIT FLIGHTS. NASA HEACO UARTERS, WASHINGTON, D.C., MARCH 1965.

REFERENCE NO. 2 .. EXPERIMENT PROGRAM FOR EXTEND FARTH ORBI TAL MISSIONS, REVISION NO.1 SEPTEMBER 1, 1969, NASA OMSF.

REFERENCE NO. 3 .. MISSION AND EXPERIMENT PROGRAM REQUIREME NTS FOR A ONE-YEAR SPACE STATION, GEORGE C. MARSHALL SPACE FLIGHT CENTER, FEBRUA RY, 1967.

**** WASTE ITEM NO. 1 RECORDING TAPE

STATE SOLID

DENSITY 105.00 LBS/CU. FT.

ATTRIBUTES PLASTIC TAPE

ELEMENTS PRESENT .. FE,02

COMPOSITION MYLAR, POLYETHYLENE, TEREPHTHALATE RESIN

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 2.00
DAILY RATE 0.00
3ATCH SIZE 0.11

RECLAMATION ACTION .. ERASE

***** WASTE ITEM NO. 2 DATA SHEETS

STATE SOLID

DENSITY 72.00 LBS/CU. FT.

ATTRIBUTES PAPER

ELFMENTS PRESENT ..

COMPOSITION CELLULOSE

CENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.10
DAILY RATE 0.00
BATCH SIZE 0.00

S/C SUBSYSTEM MAN SYSTEMS INTEGRATION (B) 3ROUP KEY 3.5.2

** FQUIPMENT/EXPERIMENT NO. 4BEHAVIOR **** WASTE SOURCE NJ. 10 AUDITORY FUNCTION

**** WASTE ITEM NO. 3 INSTRUMENTS

STATE SCLID

DENSITY 166.00 LBS/CU. FT.

ATTRIBUTES

ELFMENTS PRESENT ..

COMPOSITION VARIED

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 3.00
DAILY RATE 0.00
BATCH SIZE 0.18

RECLAMATION ACTION ... REPAIR

SPACE MANUFACTURING STUDIES/TASKS

```
S/C SUBSYSTEM .... MATERIALS MELTING
   3ROUP KEY .... 3.6.1
BASIC FUNCTION ..... PERFORM MISSION TASKS
        FUNCTIONAL REQUIREMENT .... SPACE MANUFACTURING STUDIES AND
                                 TASKS
** E)UlPMENT/EXPERIMENT NO. 1 .... NINIMUM BATCH SIZE
        ASSCCIATED FPE NUMBER ... 5.16
        S/C AREAS ..... MELTING LABGRATORY
**** WASTE SOURCE NO. 1 .... MINIMUM BATCH SIZE
         DOCUMENT NO. ..... 3.6.1.1.1*
***** WASTE ITEM NO. 1 .... AIR
         STATE ..... GAS
        DENSITY ..... C.09 LBS/CU. FT.
         ATTRIBUTES ..... CONTAMINATED, LOW PRESSURE
         ELFMENTS PRESENT .. 02, N2
        COMPOSITION .....
         GENERATION DATA ...
                                        QUANTITY (LBS)
                 EXPT. TOTAL
                                         10.25
                 DAILY RATE
                                          0.56
                 BATCH SIZE
                                          0.11
        RECLAMATION ACTION .. RECOMPRESS, FILTER
**** WASTE ITEM NO. 2 ... NITROGEN
         STATE .... GAS
        DENSITY ..... G.O8 LBS/CU. FT.
         ATTRIBUTES ..... CONTAMINATED, LOW PRESSURE
         ELEMENTS PRESENT .. N2
        COMPOSITION .....
         GENERATION DATA ...
                                        QUANTITY (LBS)
                 EXPT. TOTAL
                                          0.49
                 DAILY RATE
                                          0.49
                 BATCH SIZE
                                          0.10
        RECLAMATION ACTION ...
***** WASTE ITEM NO. 3 .... FILM, 16MM
         STATE ..... SOLID
         DENSITY ..... 83.00 LBS/CU. FT.
         ATTRIBUTES ..... EXPOSED, UNDEVELOPED
         ELEMENTS PRESENT ..
        CCMPOSITION ..... CELLULOSE
         CENERATION DATA ...
                                        QUANTITY (LBS)
                 EXPT. TOTAL
                                        310.00
                 DAILY RATE
                                         16。90
                 BATCH SIZE
                                         1.69
        RECLAMATION ACTION .. N/A
```

S/C SUBSYSTEM MATERIALS MELTING FROUP KEY 3.6.1

** EQUIPMENT/EXPERIMENT NO. 1 MINIMUM BATCH SIZE **** WASTE SOURCE NO. 1 MINIMUM BATCH SIZE **** ***************************

**** WASTE ITEM NO. 4 M 512 EXPERIMENT FACILITY

STATE SOLID

DENSITY 45.00 LBS/CU. FT. ATTRIBUTES METAL, PRESS. VESSEL

ELEMENTS PRESENT .. COMPOSITION

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 210.00 DAILY RATE 0.00 BATCH SIZE 210.00

RECLAMATION ACTION .. REUSABLE AS IS

S/C SUBSYSTEM MATERIALS PRCCESSING

3ROUP KEY 3.6.2

BASIC FUNCTION PERFORM MISSION TASKS FUNCTIONAL REQUIREMENT SPACE MANUFACTURING STUDIES AND

TASKS

** EQUIPMENT/EXPERIMENT NO. 1 MEDIUM BATCH SIZE

ASSOCIATED FPE NUMBER ... 5.16
S/C AREAS MELTING LABORATORY

**** WASTE SOURCE NO. 1 ... MEDIUM BATCH SIZE

DOCUMENT NO. 3.6.2.1.1%

REFERENCE NO. 1 .. PEPORT ME-69-1, SPACE PROCESSING AND MAN UFACTURING, DTD. OCTOBER 21, 1969, P. 54 . GEORGE C. MARSHALL SPACE FLIGHT CENTER , NASA.

REFERENCE NO. 2 .. EXPERIMENT PROGRAM FOR EXTENDED EARTH OR BITAL MISSION, REVISION NO. 1, SEPTEMBER 1968, NASA.

REFERENCE NO. 3 .. SIAKIY CORP., ELECTRON BEAM MAINTENANCE MANUAL

**** WASTE ITEM NO. 1 AIR

STATE GAS

DENSITY C.09 LBS/CU. FT.

ATTRIBUTES CONTAMINATED, LOW PRESS.

ELEMENTS PRESENT .. 02, N2

COMPOSITION

GENERATION DATA ...

QUANTITY (LBS)

PACE 593

EXPT. TOTAL 125.86
DAILY RATE 5.37
BATCH SIZE 0.97

RECLAMATION ACTION .. RECOMPRESS, FILTER

**** WASTE ITEM NO. 2 NITROGEN

STATE GAS

DENSITY 0.08 LRS/CU. FT.

ATTRIBUTES CONTAMINATED, LOW PRESS.

ELEPENTS PRESENT .. N2

COMPOSITION

GENERATION DATA ...

QUANTITY (LBS)

EXPT. TOTAL 4.69
DAILY RATE 4.69
BATCH SIZE 0.94

RECLAMATION ACTION .. RECOMPRESS, FILTER

S/C SUBSYSTEM MATERIALS PRCCESSING GROUP KEY 3.6.2 ** EQUIPMENT/EXPERIMENT NO. 1 MEDIUM BATCH SIZE **** WASTE SOURCE NO. 1 ... MEDIUM BATCH SIZE **** WASTE ITEM NO. 3 FILM, 16MM STATE SOLID DENSITY 83.00 LBS/CU. FT. ATTRIBUTES EXPOSED, UNDEVELOPED ELEMENTS PRESENT .. COMPOSITION CELLULOSE GENERATION DATA ... QUANTITY (LBS) EXPT. TOTAL 716.56 DAILY RATE 33.80 1.69 BATCH SIZE RECLAMATION ACTION .. N/A **** WASTE ITEM NO. 4 ... EXPERIMENTAL FACILITY STATE SOLID DENSITY 100.00 LBS/CU. FT. ATTRIBUTES METAL PRESS. VESSEL ELEMENTS PRESENT .. FE, NI, CU COMPOSITION PLASTIC GENERATION DATA ... QUANTITY (LBS) EXPT. TOTAL 1100.00 DAILY RATE 0.00 BATCH SIZE 1100.00 RECLAMATION ACTION .. REUSABLE AS IS **** WASTE ITEM NO. 5 ACCESSORY TOOLING STATE SOLID DENSITY 45.00 LBS/CU. FT. ATTRIBUTES METAL ELEMENTS PRESENT .. NI, CO, CU, FE

COMPOSITION PLASTIC

EXPT. TOTAL

DAILY RATE

BATCH SIZE

GENERATION DATA ...

RECLAMATION ACTION ..

QUANTITY (LBS)

1320.00

120.00

120.00

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S/C SUBSYSTEM .... MATERIALS PROCESSING
   GROUP KEY .... 3.6.2
** E ?UIPMENT/EXPERIMENT NO. 1 ....MEDIUM BATCH SIZE
**** WASTE SOURCE NO. 1 ... PECIUM BATCH SIZE
***** WASTE ITEM NO. 6 ... WATER
         STATE ..... LIGUID
         DENSITY ..... 62.50 LBS/CU. FT.
         ATTRIBUTES .... CONTAMINATED
         ELEMENTS PRESENT ...
         COMPOSITION .... WATER
                                       QUANTITY (LBS)
         GENERATION DATA ...
                                       125.00
                 EXPT. TOTAL
                 DAILY RATE
                                         0.00
                 BATCH SIZE
                                          0.00
         RECLAMATION ACTION .. FILTER
**** ** WASTE ITEM NO. 7 .... WATER
         STATE ..... LIQUID
         DENSITY ...... 62.50 LBS/CU. FT.
         ATTRIBUTES .... HEATED
         ELEMENTS PRESENT ...
         COMPOSITION ..... WATER
         GENERATION DATA ...
                                      ' QUANTITY (LBS)
                                        625.00
                 EXPT. TOTAL
                 DAILY RATE
                                        625.00
                                        125.00
                 BATCH SIZE
         RECLAMATION ACTION .. COOL
**** WASTE ITEM NO. 8 .... FILAMENT
         STATE ..... SOLID
         DENSITY ..... 0.00 LBS/CU. FT.
         ATTRIBUTES ..... METALLIC, BURNED
         ELEMENTS PRESENT .. COBALT
         COMPOSITION .....
                                        QUANTITY (LBS)
         GENERATION DATA ...
                 EXPT. TOTAL
                                          0.00
                                          0.00
                 DAILY RATE
```

0.00

BATCH SIZE

S/C SUBSYSTEM MATERIALS PRCCESSING GROUP KEY 3.6.2

** EQUIPMENT/EXPERIMENT NO. 1 MEDIUM.BATCH SIZE **** WASTE SOURCE NO. 1 MEDIUM BATCH SIZE

***** WASTE ITEM NO. 9 SEALS

STATE SDL1D

DENSITY C.OO LBS/CU. FT.

ATTRIBUTES PLASTIC, DAMAGED

ELEMENTS PRESENT .. SI COMPOSITION TFE

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.00
DAILY RATE 0.00
BATCH SIZE 0.00

S/C SUBSYSTEM PRE-PRODUCTION MATERIALS PROCESSING SROUP KEY 3.6.3

BASIC FUNCTION PERFORM MISSION TASKS
FUNCTIONAL REQUIREMENT SPACE MANUFACTURING STUDIES AND
TASKS

** EQUIPMENT/EXPERIMENT NO. . 1 PRE-PRODUCTION LOTS

ASSOCIATED FPE NUMBER ... 5.24 S/C AREAS ... LABORATORY

**** WASTE SOURCE NO. 1 ... PRE-PRODUCTION LOTS

COCUMENT NO. 3.6.3.1.1*

REFERENCE NO. 1 .. HOUSEKEEPING CONCEPTS FOR MANNED SPACE S YSTEMS, DOCUMENT NO. MS124Y0001, FA1RCHI LD HILLER, R.A.D., 26 JUNE 1970

REFERENCE NO. 2 .. SPACE PROCESSING AND MANUFACTURING, GECR GE C. MARSHALL SPACE FLIGHT CENTER, NASA, N70-20517-548, DATED 5 FEB., 1969

***** WASTE ITEM NO. 1 AIR
STATE GAS

DENSITY 0.09 LBS/CU. FT.

ATTRIBUTES CONTAMINATED, LOW PRESS.

ELEMENTS PRESENT .. N2, D2

COMPOSITION

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 24.00
DAILY RATE 3.40
BATCH SIZE 0.41

RECLAMATION ACTION .. RECOMPRESS, FILTER

S/C SUBSYSTEM PRODUCTION MATERIALS PROCESSING GROUP KEY 3.6.4

BASIC FUNCTION PERFORM MISSION TASKS
FUNCTIONAL REQUIREMENT SPACE MANUFACTURING STUDIES AND
TASKS

** EQUIPMENT/EXPERIMENT NO. 1 MANUFACTURING AND PROCESSING FAC

ASSOCIATED FPE NUMBER ... 5.24 S/C AREAS LABORATORY

**** WASTE SOURCE NO. 1 MANUFACTURING AND PROCESSING FACILITY

COCUMENT NO. 3.6.4.1.1*

STATE GAS

DENSITY 0.09 LBS/CU. FT. ATTRIBUTES LOW PRESSURE, HEATED

ELEMENTS PRESENT .. N2 9 02

COMPOSITION

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.00
DAILY RATE 0.70
BATCH SIZE 0.00

RECLAMATION ACTION .. COOL

EARTH RESOURCES AND OCEANOGRAPHY STUDIES/TASKS

S/C SUBSYSTEM EARTH RESOURCES AND METEOROLOGY SROUP KEY 3.7.1

BASIC FUNCTION PERFORM MISSION TASKS FUNCTIONAL REQUIREMENT EARTH SURVEYS

** EQUIPMENT/EXPERIMENT NO. 1 AGRICULTURE/ FORESTRY AND GEOGRA PHY EXPERIMENTS

ASSOCIATED FPE NUMBER ... 5.11
S/C AREAS EARTH OBSERVATION LABORATORY

**** WASTE SOURCE NO. 1 AGRICULTURE/FORESTRY AND GEOGRAPHY EXPERIMENTS

COCUMENT NO. 3.7.1.1.1*

REFERENCE NO. 1 .. EXPERIMENTAL PROGRAM FOR EXTFNDED EARTH ORBITAL MISSIONS, REV. 1 SEPT 1, 1969 TO THE EXPERIMENT PROGRAM FOR MANNED CRBITAL WORKSHOPS, AUG. 14, 1968, PAYLOADS DIRECTORA

REFERENCE NO. 2 .. CANDIDATE EXPERIMENT PROGRAM FOR MANNED SPACE STATIONS, NASA REVISED BY CONVAIR CIV. OF GENERAL DYNAMICS, AUG. 1969

REFERENCE NO. 3 .. SENSORS POSE EARTH SATELLITF CHALLENGE, AVIATION WEEK AND SPACE TECHNOLOGY, JUNE 22, 1970, PP 124-130

**** WASTE-ITEM NO. 1 ... MAGNETIC TAPE (ANALOG)

STATE SOLID

DENSITY 3C.00 LBS/CU. FT.

ATTRIBUTES FILM END, STRIPS

ELEMENTS PRESENT ..

COMPOSITION MYLAR

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.30
DAILY RATE 0.00
BATCH SIZE 0.00

RECLAMATION ACTION .. SPLICE

```
RUN NO. ** 2 **
```

S/C SUBSYSTEM EARTH RESOURCES AND METEOROLOGY GROUP KEY 3.7.1 ** EQUIPMENT/EXPERIMENT NO. 1AGRICULTURE/ FORESTRY AND GECGRA PHY EXPERIMENTS **** WASTE SOURCE NO. 1 AGRICULTURE/FORESTRY AND GEOGRAPHY EXPFR IMENTS ****** WASTE ITEM NO. 2 MAGNETIC TAPE (DIGITAL) STATE SOLID DENSITY 3C.OO LBS/CU. FT. ATTRIBUTES FILM END, STRIPS ELEMENTS PRESENT .. COMPOSITION MYLAR GENERATION DATA ... QUANTITY (LBS) EXPT. TOTAL 0.30 DAILY RATE 0.00 BATCH SIZE 0.00 RECLAMATION ACTION .. SPLICE **** WASTE ITEM NO. 3 MAGNETIC TAPE (VOICE) STATE SOLID DENSITY 30.00 LBS/CU. FT. ATTRIBUTES FILM END, STRIPS ELEMENTS PRESENT .. COMPOSITION MYLAR GENERATION DATA ... QUANTITY (LBS) EXPT. TOTAL 0.30 DAILY RATE 0.00 BATCH SIZE 0.00 RECLAMATION ACTION .. SPLICE ***** WASTE ITEM NO. 4 COMPRESSOR (CRYDGENIC) STATE SOLID DENSITY 40.00 LBS/CU. FT. ATTRIBUTES MECHANICAL COMPONENT FLEMENTS PRESENT .. FE, AL, C COMPOSITION GENERATION DATA ... QUANTITY (LBS) EXPT. TOTAL 12.00 DAILY RATE 0.00 BATCH SIZE 12.00 RECLAMATION ACTION .. REPAIR ON BOARD

S/C SUBSYSTEM EARTH RESOURCES AND METEDROLOGY 3ROUP KEY 3.7.1 ** EQUIPMENT/EXPERIMENT NO. 1AGRICULTURE/ FORESTRY AND GEOGRA PHY EXPERIMENTS **** WASTE SOURCE NO. 1 AGRICULTURE/FORESTRY AND GEOGR/PHY EXPER IMENTS **** WASTE ITEM NO. 5 ... FAILED MAGAZINE STATE SOLID DENSITY 30.00 LBS/CU. FT. ATTRIBUTES MECHAICAL COMPONENT FLEMENTS PRESENT .. AL MG COMPOSITION GENERATION DATA ... QUANTITY (LBS) EXPT. TOTAL 4.00 DAILY RATE 0.00 BATCH SIZE 4.00 RECLAMATION ACTION .. REPAIR ON BOARD **** WASTE ITEM NO. 6 ... POLAROID FILM WRAP STATE SOLID DENSITY 20.00 LBS/CU. FT. ATTRIBUTES MULTILAYER PAPER ELEMENTS PRESENT .. AL COMPOSITION PAPER, ALKALI, JELLY GENERATION DATA ... QUANTITY (LBS) EXPT. TOTAL 92.00 DAILY RATE 0.31 BATCH SIZE 0。03 RECLAMATION ACTION .. N/R **** WASTE ITEM NO. 7 ... POLAROID PRINT STATE SOLID DENSITY 60.00 LBS/CU. FT. ATTRIBUTES PHOTO STOCK ELEMENTS PRESENT .. COMPOSITION PAPER, CELLULOSE GENERATION DATA ... QUANTITY (LBS) EXPT. TOTAL 19.00 DAILY RATE 0.06 BATCH SIZE 0.01

S/C SUBSYSTEM EARTH RESOURCES AND METEOROLOGY GROUP KEY 3.7.1

** EQUIPMENT/EXPERIMENT NO. 1AGRICULTURE/ FORESTRY AND GEOGRAPHY EXPERIMENTS

**** WASTE SOURCE NO. 1 AGRICULTURE/FORESTRY AND GEOGRAPHY EXPER

**** WASTE ITEM NO. 8 ... PRINT FIXER

STATE SOLID

DENSITY 2C.00 LBS/CU. FT.

ATTRIBUTES PLASTIC CONTAINER WITH SPONGE ATTACHED

ELEMENTS PRESENT ..

COMPOSITION MASTIC, ACETATE

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 8.30
DAILY RATE 0.03
BATCH SIZE 0.03

RECLAMATION ACTION .. REFILL

S/C SUBSYSTEM EARTH RESCURCES AND METEOROLOGY FROUP KEY 3.7.1

** EQUIPMENT/EXPERIMENT NO. 2 GEOLOGY/ MINEROLOGY EXPERIMENTS

ASSOCIATED FPE NUMBER ... 5.11
S/C AREAS EARTH OBSERVATION LABORATORY

**** WASTE SOURCE NO. 1 ... GEOLOGY/MINEROLOGY EXPERIMENTS

DOCUMENT NO. 3.7.1.2.1*

REFERENCE NO. 1 .. EXPERIMENTAL PROGRAM FOR EXTENDED EARTH ORBITAL MISSIONS, REV. 1, SEPT. 1, 1969 TO THE EXPERIMENT PROGRAM FOR MANNED ORBITAL WORKSHOPS, AUG. 14, 1968, PAYLOADS DIRECTORA

REFERENCE NO. 2 .. CANDIDATE EXPERIMENT PROGRAM FOR MANNED SPACE STATIONS, NASA. REVISED BY CONVAIR DIVISION OF GENERAL DYNAMICS, AUGUST 19 69

REFERENCE NO. 3 .. SENSORS POSE EARTH SATELLITE CHALLENGE, AVIATION WEEK TECHNOLOGY, JUNE 22, 1970, PP 124-130.

**** WASTE ITEM NO. 1 MAGNETIC TAPE (ANALOG)

STATE SOLID

DENSITY 30.00 LBS/CU. FT.

ATTRIBUTES FILM END, STRIP

ELEMENTS PRESENT ..

COMPOSITION MYLAR

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.30
DAILY RATE 0.00
BATCH SIZE 0.00

RECLAMATION ACTION .. SPLICE

***** WASTE ITEM NO. 2 MAGNETIC TAPE (DIGITAL)

STATE SOLID

DENSITY 3C.00 LBS/CU. FT.

ATTRIBUTES FILM END, STRIP

ELEMENTS PRESENT ..

COMPOSITION MYLAR

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.30
DAILY RATE 0.00
BATCH SIZE 0.00

PECLAMATION ACTION .. SPLICE

```
S/C SUBSYSTEM .... EARTH RESOURCES AND METEOROLOGY
   3ROUP KEY .... 3.7.1
** EQUIPMENT/EXPERIMENT NO. 2 .....GEOLOGY/ MINEROLOGY EXPERIMENTS
**** WASTE SOURCE NO. 1 ... GECLOGY/MINEROLOGY EXPERIMENTS
***** WASTE ITEM NO. 3 ... MACNETIC TAPE (VOICE)
         STATE ..... SOLID
         DENSITY ..... 3C.OO LBS/CU. FT.
         ATTRIBUTES ..... FILM END, STRIP
         ELEMENTS PRESENT ..
         COMPOSITION .... MYLAR
         GENERATION DATA ...
                                        QUANTITY (LBS)
                  EXPT. TOTAL
                                           0.30
                  DAILY RATE
                                           0.00
                  BATCH SIZE
                                           0.00
         RECLAMATION ACTION .. SPLICE
***** WASTE ITEM NO. 4 .... COMPRESSOR (CRYOGENIC)
         STATE ..... SOLID
         DENSITY ..... 40.00 LBS/CU. FT.
         ATTRIBUTES ..... MECHANICAL COMPONENT
         ELEMENTS PRESENT .. FE, AL, C
         COMPOSITION .....
         GENERATION DATA ...
                                        QUANTITY (LBS)
                EXPT. TOTAL
                                          12.00
                  DAILY RATE
                                           0.00
                  BATCH SIZE
                                          12.00
         RECLAMATION ACTION .. REPAIR ONBOARD
***** WASTE ITEM NO. 5 .... FAILED MAGAZINE
         STATE ..... SOLID
         DENSITY ..... 30.00 LBS/CU. FT.
         ATTRIBUTES .... MECHANIGAL COMPONENT
         ELEMENTS PRESENT .. AL. MG
         COMPOSITION .....
         GENERATION DATA ...
                                        QUANTITY (LBS)
                  EXPT. TOTAL
                                           4.00
                  DAILY RATE
                                           0.00
                  BATCH SIZE
                                           4.00
         RECLAMATION ACTION .. REPAIR ONBOARD
```

S/C SUBSYSTEM EARTH RESCURCES AND METECROLOGY 3ROUP KEY 3.7.1 ** EQUIPMENT/EXPERIMENT NO. 2GEDLOGY/ MINEROLOGY EXPERIMENTS **** WASTE SOURCE NO. 1 GECLOGY/MINEROLOGY EXPERIMENTS ***** WASTE ITEM NO. 6 POLAROID FILM WRAP STATE SOLID DENSITY 20.00 LBS/CU. FT. ATTRIBUTES MULTILAYER PAPER ELEMENTS PRESENT .. AL COMPOSITION PAPER, ALKALI, GEL GENERATION DATA ... QUANTITY (LBS) EXPT. TOTAL 92,00 DAILY RATE 0.31 BATCH SIZE 0.03 RECLAMATION ACTION .. N/R **** WASTE ITEM NO. 7 POLAROID PRINT STATE SOLID DENSITY 60.00 LBS/CU. FT. ATTRIBUTES PHOTO STOCK ELEMENTS PRESENT .. COMPOSITION PAPER, CELLULOSE GENERATION DATA ... QUANTITY (LBS) EXPT. TOTAL 19.00 DAILY RATE 0.06 BATCH SIZE 0.01 RECLAMATION ACTION .. N/R **** WASTE ITEM NO. 8 ... PRINT FIXER STATE SOLID

DENSITY 20.00 LBS/CU. FT.

ATTRIBUTES PLASTIC CONTAINER WITH SPONGE ATTACHED

ELEMENTS PRESENT ..

COMPOSITION PLASTIC, ACETATE

CENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 8.30 DAILY RATE 0.03 BATCH SIZE 0.03

RECLAMATION ACTION .. REFILL

```
S/C SUBSYSTEM .... EARTH RESCURCES AND METEOROLOGY
   GROUP KEY .... 3.7.1
** E QUIPMENT/EXPERIMENT NO. 3 ..... HYDROLOGY/WATER RESOURCES EXPERI
                                   MENTS
         ASSOCIATED FPE NUMBER ... 5.11
         S/C AREAS ..... EARTH OBSERVATION LABORATORY
**** WASTE SOURCE NO. 1 ... HYDROLOGY/WATER RESOURCES EXPERIMENTS
         COCUMENT NO. ..... 3.7.1.3.1*
         REFERENCE NO. 1 .. EXPERIMENTAL PROGRAM FOR EXTENDED EARTH
                            ORBITAL MISSIONS, REV. 1, SEPT. 1, 1969 TO 1H
                            E EXPERIMENT PROGRAM FOR MANNED ORBITAL
                            WORKSHOPS, AUG. 14, 1968, PAYLOADS DIRECTOR
         REFERENCE NO. 2 .. CANDIDATE EXPERIMENT PROGRAM FOR MANNED
                            SPACE STATIONS, NASA, REVISED BY CONVAIR
                            DIVISION OF GENERAL DYNAMICS, AUGUST 19
         REFERENCE NO. 3 .. SENSORS POSE EARTH SATELLITE CHALLENCE,
                            AVIATION WEEK AND SPACE TECHNOLOGY, JUNE
                            22, 1970. PP 124-130.
**** WASTE ITEM NO. 1 .... MAGNETIC TAPE (ANALOG)
         STATE ..... SOLID
         DENSITY ..... 30.00 LBS/CU. FT.
         ATTRIBUTES ..... FILM-END, STRIP
         ELEMENTS PRESENT ..
         CCMPOSITION ..... MYLAR
         GENERATION DATA ...
                                          QUANTITY (LBS)
                  EXPT. TOTAL
                                            0.30
                  DAILY RATE
                                            0.00
                  BATCH SIZE
                                            0.00
         RECLAMATION ACTION .. SPLICE
*** WASTE ITEM NO. 2 ... MAGNETIC TAPE (DIGITAL)
         STATE ..... SCLID
         DENSITY ..... 3C.OO LBS/CU. FT.
         ATTRIBUTES ..... FILM END, STRIP
         ELFMENTS PRESENT ..
         COMPOSITION ..... MYLAR
         GENERATION DATA ...
                                          QUANTITY (LBS)
                  EXPT. TOTAL
                                            0.30
                  DAILY RATE
                                            0.00
```

0.00

BATCH SIZE

RECLAMATION ACTION .. SPLICE

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S/C SUBSYSTEM .... EARTH RESOURCES AND METEGROLOGY GROUP KEY .... 3.7.1
```

** EQUIPMENT/EXPERIMENT NO. 3 HYDROLOGY/WATER RESOURCES EXPERIMENTS

**** WASTE ITEM NO. 3 MAGNETIC TAPE (VOICE

STATE SCLID

DENSITY 3C.00 LBS/CU. FT. ATTRIBUTES FILM END, STRIP

ELEMENTS PRESENT ..

COMPOSITION MYLAR

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 0.30
DAILY RATE 0.00
BATCH SIZE 0.00

RECLAMATION ACTION .. SPLICE

***** WASTE ITEM NO. 4 POLAROID PRINT

STATE SOLID

DENSITY 6C.OO LBS/CU. FT.

ATTRIBUTES PHCTO STOCK

ELEMENTS PRESENT ..

COMPOSITION PAPER, CELLULOSE

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 19.00
DAILY RATE 0.06
BATCH SIZE 0.01

RECLAMATION ACTION .. N/R

***** WASTE ITEM NO. 5 PCLAROID FILM PACKAGE

STATE SOLID

DENSITY 2C.00 LBS/CU. FT.

ATTRIBUTES MULTILAYER PAPER

ELFMENTS PRESENT .. AL

COMPOSITION PAPER, ALKALI, GEL

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 92.00
DAILY RATE 0.31
BATCH SIZE 0.03

S/C SUBSYSTEM EARTH RESOURCES AND METEOROLOGY SROUP KEY 3.7.1

** E QUIPMENT/EXPERIMENT NO. 3HYDROLOGY/WATER RESOURCES EXPERIMENTS

**** WASTE SOURCE NO. I HYDROLOGY/WATER RESCURCES EXPERIMENTS

**** WASTE ITEM NO. 6 ... FAILED MAGAZINE

STATE SCLID

DENSITY 30.00 LBS/CU. FT. ATTRIBUTES MECHANICAL COMPONENT

ELEMENTS PRESENT .. AL, MG

CCMPOSITION

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 4.00
DAILY RATE 0.00
BATCH SIZE 4.00

RECLAMATION ACTION .. REPAIR ONBOARD

**** WASTE ITEM NO. 7 POLARCID PRINT FIXER

STATE SOLID

DENSITY 20.00 LBS/CU. FT.

ATTRIBUTES PLASTIC CONTAINER WITH SPONGE ATTACHED

FLEMENTS PRESENT ..

COMPOSITION PLASTIC, ACETATE,

GENERATION DATA ... -QUANTITY (LBS)

EXPT. TOTAL 8.30 DAILY RATE 0.03 BATCH SIZE 0.03

RECLANATION ACTION .. REFILL

S/C SUBSYSTEM EARTH RESOURCES AND METEOROLOGY SROUP KEY 3.7.1

** E JUIPMENT/EXPERIMENT NO. 4 METEOROLOGY EXPERIMENTS

ASSOCIATED FPE NUMBER ... 5.11
S/C AREAS EARTH OBSERVATION LABORATORY

**** WASTE SOURCE NO. I METEOROLOGY EXPERIMENTS

DOCUMENT NO. 3.7.1.4.1

REFERENCE NO. 1 .. EXPERIMENTAL PROGRAM FOR EXTENDED EARTH GRBITAL MISSIONS, REV. 1, SEPT. 1, 1969 TO THE EXPERIMENT PROGRAM FOR MANNED CRBITAL WORKSHOPS, AUG. 14, 1968, PAYLOADS DIRECTOR 4

REFERENCE NO. 2 .. CANDIDATE EXPERIMENT PROGRAM FOR MANNED SPACE STATION, NASA, REVISED BY CONVAIR DIVISION OF GENERAL DYNAMICS, AUGUST 196

REFERENCE NO. 3 .. SENSORS POSE EARTH SATELLITE CHALLENGE, AVIATION WEEK AND SPACE TECHNOLOGY, JUNE 22, 1970, PP 124-130.

**** WASTE ITEM NO. 1 POLAROID PRINT

STATE SOLID

DENSITY 6C.00 LBS/CU. FT.

ATTRIBUTES PHOTO STOCK

ELEMENTS PRESENT ..

COMPOSITION PAPE, CELLULOSE

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 19.00
DAILY RATE 0.06
BATCH SIZE 0.01

RECLAMATION ACTION .. N/R

**** WASTE ITEM NO. 2 POLARDID FILM PKG.

STATE SOLID

DENSITY 20.00 LBS/CU. FT.

ATTRIBUTES MULTILAYER PAPER

ELEMENTS PRESENT .. AL CGMPOSITION PAPER

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 92.00
DAILY RATE 0.31
BATCH SIZE 0.03

```
S/C SUBSYSTEM .... EARTH RESOURCES AND METEOROLOGY
   GROUP KEY ..... 3.7.1
** EQUIPMENT/EXPERIMENT NO. 4 .....METEOPOLOGY EXPERIMENTS
**** WASTE SOURCE NO. 1 ... METECROLOGY EXPERIMENTS
**** WASTE ITEM NO. 3 ... MAGNETIC TAPE (ANALOG)
         STATE ..... SOLID
         DENSITY ..... 30.00 LBS/CU. FT.
         ATTRIBUTES ..... FILM END, STRIPS
         ELEMENTS PRESENT ..
         COMPOSITION ..... ALKALI GEL, MYLAR
         GENERATION DATA ...
                                        QUANTITY (LBS)
                  EXPT. TOTAL
                                           0.30
                  DAILY RATE
                                           0.00
                                           0.00
                  BATCH SIZE
         RECLAMATION ACTION .. SPLICE
**** WASTE ITEM NO. 4 .... MAGNETIC TAPE (DIGITAL
         STATE ..... SCLID
         DENSITY ..... 30.00 LBS/CU. FT.
         ATTRIBUTES .... FILM END, STRIPS
         ELEMENTS PRESENT ..
         COMPOSITION ..... ALKALI GEL, MYLAR
         GENERATION DATA ...
                                        QUANTITY (LBS)
                EXPT. TOTAL
                                           0.30
                  DAILY RATE
                                           0.00
                  BATCH SIZE
                                           0.00
         RECLAMATION ACTION .. SPLICE
**** WASTE ITEM NO. 5 .... FAILED MAGAZINE
         STATE ..... SOLID
         DENSITY ..... 3C.OO LBS/CU. FT.
         ATTRIBUTES ..... MECH. COMPONENTS
         ELEVENTS PRESENT .. AL. MG
         COMPOSITION .....
                                        QUANTITY (LBS)
         GENERATION DATA ...
                                           4.00
                  EXPT. TOTAL
                  DAILY RATE
                                           0.00
                  BATCH SIZE
                                           4.00
         RECLAMATION ACTION .. REPAIR ONBOARD
```

S/C SUBSYSTEM EARTH RESGURCES AND METECROLOGY SROUP KEY 3.7.1

**** WASTE ITEM NO. 6 FAILED CRYOGENIC COMPRESSOR

STATE SOLID

DENSITY 40.00 LBS/CU. FT.

ATTRIBUTES METAL ELEMENTS PRESENT .. FE, AL, C

COMPOSITION

GENERATION DATA ... QUANTITY (LBS)

EXPT. TOTAL 12.00
DAILY RATE 0.00
BATCH SIZE 12.00

RECLAMATION ACTION .. REPAIR

***** WASTE ITEM NO. 7 MAGNETIC TAPE (VOICE)

STATE SOLID

DENSITY 30.00 LBS/CU. FT. ATTRIBUTES FILM END, STRIP

ELEMENTS PRESENT ...

COMPOSITION MYLAR

GENFRATICN DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.30

DAILY RATE 0.00
BATCH SIZE 0.00

RECLAMATION ACTION .. SPLICE

```
S/C SUBSYSTEM .... EARTH RESOURCES AND METEOROLOGY
   GROUP KEY .... 3.7.1
** EQUIPMENT/EXPERIMENT NO. 5 .... OCEANOGRAPHY EXPERIMENTS
         ASSOCIATED FPE NUMBER ... 5.11
         S/C AREAS ..... EARTH OBSERVATION LABGRATORY
**** WASTE SOURCE NO. 1 .... OCEANOGRAPHY EXPERIMENTS
         COCUMENT NO. ..... 3.7.1.5.1*
         REFERENCE NO. 1 .. EXPERIMENTAL PROGRAM FOR EXTENDED EARTH
                            GRBITAL MISSIONS, REV. 1, SEPT. 1, 1969 TO TH
                            E EXPERIMENT PROGRAM FOR MANNED CRBITAL
                            WORK SHOPS, AUG. 14, 1968, PAYLOACS DIRECTOR
         REFERENCE NO. 2 .. CANDIDATE EXPERIMENT PROGRAM FOR MANNED
                            SPACE STATIONS, NASA, REVISED BY CONVAIR
                             DIVISION OF GENERAL DYNAMICS, AUGUST 19
                            69.
         REFERENCE NO. 3 .. SENSORS POSE FARTH SATELLITE CHALLENGE,
                            AVIATION WEEK AND SPACE TECHNOLOGY, JUNE
                             22, 1970, PP 124-130.
***** WASTE ITEM NO. 1 .... POLAROID PRINT
         STATE ..... SOLID
         DENSITY ..... 6C.00 LBS/CU. FT.
         ATTRIBUTES ..... PHOTO STOCK
         ELEMENTS PRESENT ..
         COMPOSITION ..... PAPER, CELLULOSE
         GENERATION DATA ...
                                          QUANTITY (LBS)
                  EXPT. TOTAL
                                            19,00
                  DAILY RATE
                                            0.06
                  BATCH SIZE
                                             0.01
         RECLAMATION ACTION .. N/R
**** WASTE ITEM NO. 2 ... POLAROID FILM PACK
         STATE ..... SOLID
         DENSITY ..... 20.00 LBS/CU. FT.
         ATTRIBUTES ..... MULTILAYER PAPER
         ELEMENTS PRESENT .. AL
         COMPOSITION ..... PAPER, ALKALI GEL
         GENERATION DATA ...
                                          QUANTITY (LBS)
                  EXPT. TOTAL
                                            92.00
                  DAILY RATE
                                             0.31
```

0.03

BATCH SIZE

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S/C SUBSYSTEM .... EARTH RESOURCES AND METEOROLOGY
   GROUP KEY .... 3.7.1
** EQUIPMENT/EXPERIMENT NO. 5 ....OCEANOGRAPHY EXPERIMENTS
**∹ * WASTE SOURCE NO. 1 .... OCEANOGRAPHY EXPERIMENTS
**** WASTE ITEM NO. 3 .... FAILED MAGAZINE
         STATE .... SOLID
        DENSITY ..... 30.00 LBS/CU. FT.
        ATTRIBUTES ..... MECHANICAL
        ELEMENTS PRESENT .. AL, MG
        COMPOSITION .....
        GENERATION DATA ...
                                       QUANTITY (LBS)
                 EXPT. TOTAL
                                          4.00
                 DAILY RATE
                                          0.00
                 BATCH SIZE
                                          4.00
        RECLAMATION ACTION .. REPAIR ONBOARD
***** WASTE ITEM NO. 4 ... MAGNETIC TAPE (DIGITAL)
        STATE ..... SOLID
        DENSITY ..... 30.00 LBS/CU. FT.
        ATTRIBUTES ..... FILM END
        ELEMENTS PRESENT ..
        COMPOSITION ..... MYLAR
        GENERATION DATA ...
                                       QUANTITY (LBS)
                 EXPT. TOTAL
                                          0.30
                 DAILY RATE
                                          0.00
                 BATCH SIZE
                                          0.00
        RECLAMATION ACTION .. SPLICE
**** WASTE ITEM NO. 5 ... MAGNETIC TAPE (ANALOG)
        STATE ..... SOLID
```

DENSITY 30.00 LBS/CU. FT. ATTRIBUTES FILM END, STRIPS ELEMENTS PRESENT .. COMPOSITION MYLAR GENERATION DATA ... QUANTITY (LBS) EXPl. TOTAL 0.30 DAILY RATE 0.00 BATCH SIZE 0.00 RECLAMATION ACTION .. SPLICE

S/C SUBSYSTEM EARTH RESOURCES AND METEOROLOGY FROUP KEY 3.7.1

**** WASTE ITEM NO. 6 ... MAGNETIC TAPE (VOICE)

STATE SOLID

ELEMENTS PRESENT ..

CCMPOSITION MYLAR

GENERATION DATA ... QUANTITY (LBS)
EXPT. TOTAL 0.30

EXPT. TOTAL 0.30
DAILY RATE 0.00
BATCH SIZE 0.00

RECLAMATION ACTION .. SPLICE

ADVANCED TECHNOLOGY AND ENGINEERING OPERATIONS

LUNAR AND INTERPLANETARY MISSION SUPPORT

S/C SUBSYSTEM LUNAR MISSIONS GROUP KEY 3.9.1

BASIC FUNCTION PERFORM MISSION TASKS
FUNCTIONAL REQUIREMENT LUNAR AND INTERPLANETARY MISSION
SUPPORT

** EQUIPMENT/EXPERIMENT NO. 1 ASTRONOMICAL INVESTIGATIONS

ASSOCIATED FPE NUMBER ...

S/C AREAS LABORATORY

STCRAGE

**** WASTE SOURCE NO. 1 ASTRONOMICAL INVESTIGATIONS

DOCUMENT NO. 3.9.1.1.1*

REFERENCE NO. 1 .. LOGISTICS IMPLICATIONS OF AN ASTRONOMICA LOBSERVATORY ON THE MODN, RAND CORP., M EMO #RM 4916-PR FEB. 1966.

S/C SUBSYSTEM LUNAR MISSIONS GROUP KEY 3.9.1

** EQUIPMENT/EXPERIMENT NO. 2 GEOLOGICAL EXPLORATIONS

ASSOCIATED FPE NUMBER ...
S/C AREAS LABORATORY
STORAGE

**** WASTE SOURCE NO. 1 GEOLOGICAL EXPLORATIONS

DOCUMENT NO. 3.5.1.2.1*

REFERENCE NO. 1 .. PROCEEDINGS OF THE WORKING GROUP ON EXTR ATERRESTRIAL RESOURCES, 4TH ANNUAL MEETI NG U.S.A.F.A. COLO. 1965. MILITARY SCIENCES STUDIES/TASKS

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